CUMENTS

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In this issue:
U.S. wages, U.S. prices,
and international prices in 1985

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MONTHLY LABOR REVIEW

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Henry Lowenstern, Editor-in-Chief
Robert W. Fisher, Executive Editor

S. Meister, T. A. Sherman 3 **Import, export prices reflect declining dollar and oversupply**
Import prices rose in fourth-quarter 1985 as effects of weakening dollar were felt; export prices were held down by competition and oversupplies

C. Howell and A. Clem 17 **Inflation remained mild again during 1985**
Consumer prices rose by less than 4 percent, about the same as during 1982–84; the rate of increase for producer prices of finished goods was less than 2 percent

J. Borum and J. Conley 22 **Wage restraints continue in 1985 major contracts**
Wage adjustments were low for the fourth year in a row; many contracts featured 'back-loading,' lump-sum payments, and two-tiered systems

Wayne J. Howe 29 **The business services industry sets pace in employment growth**
Industries which provide services to business for a fee or on a contractual basis have had rapid employment gains, especially firms supplying data processing services

L. Carey, K. L. Hazelbaker 37 **Employment growth in the temporary help industry**
The number of employees rose by 70 percent from November 1982 to November 1984, making the industry the fastest growing among those with employment over 50,000

CONFERENCE PAPERS

J. Chalykoff, P. Cappelli 45 'Union avoidance:' management's new industrial relations strategy

Paula B. Voos 47 Environmental factors in the labor-management relationship

M. Gunderson, N. M. Meltz 48 Canadian unions achieve strong gains in membership

REPORTS

Kirk Kaneer 50 Distribution of consumption by aggregate expenditure shares

DEPARTMENTS

2 Labor month in review
45 Conference papers
50 Research summaries
54 Major agreements expiring next month
56 Developments in industrial relations
61 Current labor statistics

Labor Month In Review

COMPETITIVENESS. Can America balance human values with industries' need to remain competitive? National leaders from business, labor, and academia addressed that question on March 5, at a Washington, D.C., conference cosponsored by the George Washington University and the U.S. Department of Labor. Professors Thomas A. Kochan and Robert McKersie of the Massachusetts Institute of Technology and Richard E. Walton of Harvard University helped lead the discussion. Excerpts:

Human values (Kochan). Democratic societies face the dual challenge of achieving competitiveness while at the same time attending to the human values of their citizens. In the 1930's, American policymakers addressed this challenge by enacting legislation supporting collective bargaining, minimum wages, unemployment compensation, and so forth. Later legislation covered occupational safety and health, equal employment opportunity, and pension security. Over the years, these policies were supported by economic and trade policies that promoted expansion of world and domestic markets. This encouraged the development of private collective bargaining and human resource management practices that provided management with the stability needed to capture expanding market opportunities and labor with the means to share in the benefits of economic growth.

But the intensified competitive pressures experienced by many American firms and industries in recent years have raised questions about the ability of management and labor to meet this dual challenge within the existing policy framework and the institutional practices that have evolved since the 1930's.

One of the hallmarks of collective bargaining has always been its capacity to adapt to different market settings in ways that "took wages out of competition." This stimulated American management to search for strategies that gave their businesses a comparative advantage on bases other than being the lowest wage rate competitor. One of the pressures for change in industrial relations in recent years is that, given the growth of international competition and the rise of domestic nonunion competition, collective bargaining has experienced difficulty in performing this function. Some employers have responded to this situation in the short run by decentralizing bargaining structures, shifting wage criteria to focus more directly on local ability to pay, and demanding wage concessions and work rule changes in an effort to close the gap in labor costs with their competitors.

Employment security (McKersie). If the twin objectives of competitiveness and human values are to be linked in a constructive manner, then employment security is one of the most important themes for achieving this integration. Certainly, if either objective is pursued without reference to the other, then significant distortions emerge in the social fabric and economic relations in the United States. For example, if employers seek to realize shortrun cost savings, they may be prompted to "dump" large numbers of workers (often older workers) into the labor market and pursue aggressive restructuring that ignores the human costs that are involved. On the other hand, if workers (and especially their union representatives) are able to exercise bargaining power to the point that they achieve job protection, of the sort that has existed for long periods of time in the railroad industry, then the enterprise as well as generations of potential workers (and indirectly the communities involved) suffer the consequences of protection at the price of economic viability.

Clearly, the "best way" is to realize a balance and to fashion concepts, principles, and programs that bring about a creative synthesis of competitiveness and human values.

Commitment (Walton). When we think of commitment in the workplace we usually focus on worker commitment to the organization and the benefits of this commitment for competitiveness. Is it not also true that additional worker commitment to the welfare of the employing organization must be matched by additional organizational commitment to the employees' welfare?

The commitment of workers to the enterprise can take many forms, including initiatives to improve quality, reduce scrap and other waste, and increase the productivity of their labor.

Similarly the enterprise's commitment to workers can be expressed in a variety of policy areas—strong employment assurances, meaningful opportunities to participate in decisions, provisions for training and retraining, information, challenging jobs, and a management style that treats workers as adults.

How is *union* commitment to the success of the enterprise reciprocated? Does it not imply commitment by the management of the enterprise to respect the union as an institution? If so, what actions and institutional forms express the reciprocal commitments of management and unions to the other?

If workers and unions are to accept more responsibility for the competitiveness of the enterprise and exercise more influence within it they will require more timely information. If workers make economic sacrifice to keep the enterprise competitive, new principles governing economic sharing must be developed.

Information about the conference is available from the Bureau of Labor-Management Relations and Cooperative Programs, Room N5416, U.S. Department of Labor, Washington, D.C. 20210 □

Import, export prices reflect declining dollar and oversupply in 1985

After falling during the first three quarters of the year, import prices rose as the effects of the weakening dollar were finally felt; meanwhile, fierce competition and oversupply forced down U.S. export prices

SHELLEY MEISTER AND THOMAS A. SHERMAN

U.S. import prices, as measured by the BLS International Price Program, continued to fall in 1985, marking their third consecutive year of decline. The 1.1-percent decrease for the year followed a 1.5-percent drop in 1984. Most of the 1985 decline was registered in the first quarter, when import prices fell 2.3 percent. The dollar's depreciation moderated import price decreases in the second and third quarters, and contributed to a 1.8-percent price rise for imports during the fourth quarter. (See chart 1.)

During 1985, price increases for imports of finished goods and food could not offset declines for raw materials and intermediate goods. Prices rose 4.2 percent for machinery and transport equipment, 0.8 percent for miscellaneous manufactured goods, and 4.8 percent for food. Prices for beverages and tobacco also rose 3.3 percent for the year. However, decreases were recorded in the other four components of the all-import price index. Energy, intermediate goods, and crude material prices were down 6.0 percent, 2.5 percent, and 7.8 percent, respectively. The fats and oils index, which represents only 0.2 percent of the all-import index, plunged 56.0 percent. These declines are largely attributable to oversupplies of basic commodities, such as crude petroleum, rubber, steel, and certain nonferrous metals.

The U.S. dollar reached an all-time high in March 1985, and then began a gradual decline, falling 9 percent by September. In late September, the decline was accelerated after a group of the Nation's major trading partners agreed to intervene in the foreign exchange market to curb the dollar's strength. The immediate effect was a further 5.1-percent decline in the value of the dollar, bringing the total drop to 13.6 percent for the year.[1]

Product areas in which the major industrialized nations supply a large percentage of U.S. imports appeared particularly susceptible to last year's changes in exchange rates. For example, the machinery and transport equipment index, which accounted for nearly 40 percent of total imports in 1985, declined 1.3 percent in the first quarter of 1985. However, as the dollar began to fall, import prices rose modestly in the middle of the year, and then jumped 3.6 percent in the fourth quarter, the strongest quarterly advance in 4 years.

The dollar's decline did not immediately affect all import prices. Some suppliers deferred price increases to see if the dollar's downward trend would be sustained. In other cases, traders were bound to long-term supply contracts and thus could not adjust prices immediately. Also, the dollar re-

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mained strong against some currencies, especially those of Mexico and Latin America. For example, the Mexican peso depreciated 54.3 percent against the U.S. dollar in 1985.[2] Meanwhile, the currencies of Canada and some of the newly industrialized nations of the Far East depreciated slightly against the dollar last year. All of these factors contributed to the record $361 billion of foreign goods imported by the United States in 1985.[3] That was 6.0 percent greater than the previous record high set in 1984.

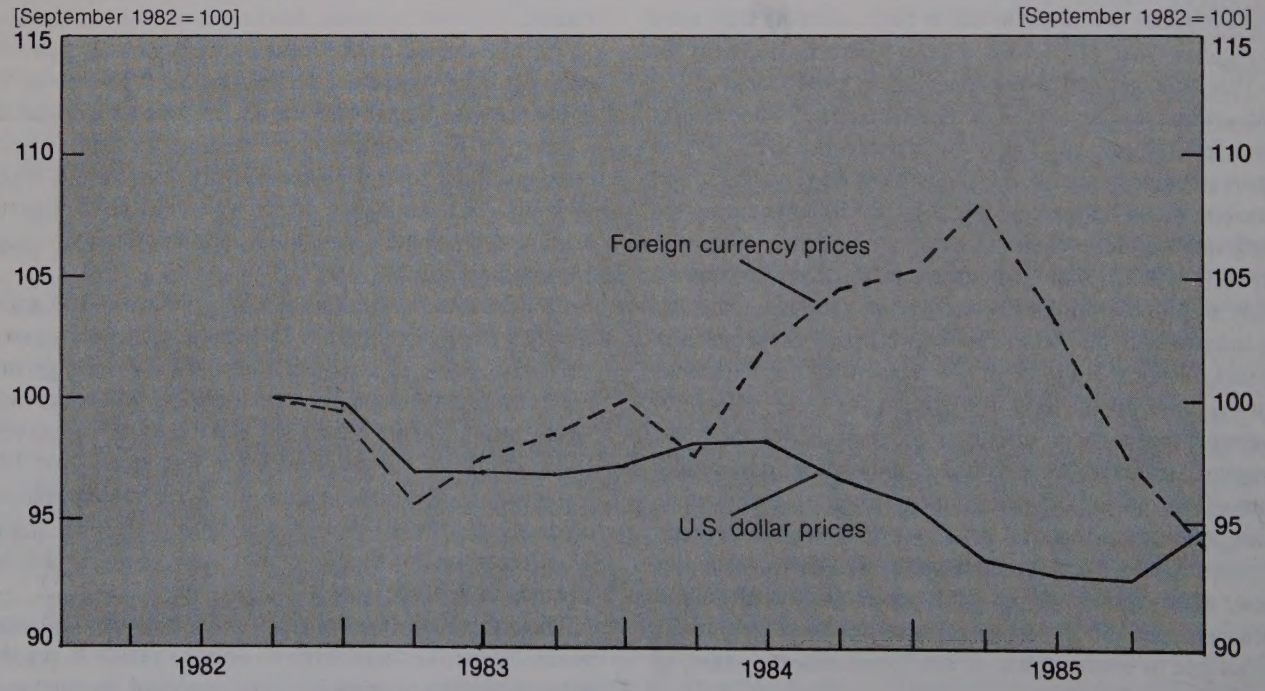
U.S. export prices declined in 1985 for the second year running. The 1.3-percent drop nearly matched the 1.4-percent decline observed in 1984. (See chart 2.) Major declines occured in the indexes for crude materials (−8.1 percent), energy (−3.1 percent), and agricultural products (−3.0 percent). The fats and oils index plummeted 31.4 percent but this index represents less than 1 percent of U.S. export trade. Declines of 1.2 percent, 1.1 percent, and 2.7 percent were registered for intermediate manufactured goods, chemicals, and beverages and tobacco. Moderating these declines were a 1.3-percent price increase for machinery and transport equipment and a 1.0-percent advance for miscellaneous manufactured goods.

Many of the same factors that caused import prices to decrease also held down export prices. Excess global stocks of food, crude materials, and fats and oils depressed prices for those commodities. The strong competition encountered by U.S. exporters, especially from producers in the Far East, kept any price increases to a minimum. Also, the strength of the U.S. dollar continued to have a dampening effect on export prices, despite the weakening during the last three quarters of the year. Although U.S. export prices dropped, the Nation's export volume was down in 1985. U.S. exporters shipped $213 billion in merchandise, or 2.2 percent less than the previous year's total.[4]

The Nation's merchandise trade deficit hit a record $148.5 billion in 1985,[5] 16 percent above the 1984 total. (See chart 3.) The largest U.S. merchandise trade deficit was held with Japan—$49.75 billion, up 35 percent from 1984. The Nation also had significant trade deficits with Canada, Taiwan, and West Germany of $22.2 billion, $13.1 billion, and $12.2 billion respectively.[6] In contrast, the United States continued to maintain a healthy trade surplus of $21.4 billion in the service sector.[7] Service trade includes income of U.S. foreign subsidiaries. The dollar's 1985 decline tended to push up earnings in this area.[8]

The strong dollar has been a major cause of the trade deficit. Although the real value of the trade-weighted dollar declined 13 percent between March and December 1985, at yearend it remained 32 percent higher than its July 1980 low.[9] (See chart 4.) Roughly one-third of the recent drop in the trade-weighted dollar followed the historic "Group of Five" meeting on September 22 in New York, at which

Chart 1. Quarterly indexes of U.S. dollar and foreign currency prices for U.S. imports, 1982-85



SOURCE: Bureau of Labor Statistics, based on data from the Bureau and from the Morgan Guaranty Trust Co.

Table 1. Changes in Import Price Indexes for selected categories of goods, December 1984–1985

SITC Category	Description	Percent change						
		Annual			Quarterly			
		Percentage of 1980 trade value	Dec. 1983 to Dec. 1984	Dec. 1984 to Dec. 1985	Dec. 1984 to March 1985	March 1985 to June 1985	June 1985 to Sept. 1985	Sept. 1985 to Dec. 1985
	All commodities [1]	100.000	−1.7	−1.1	−2.3	−0.5	−0.1	1.8
	All commodities, except fuels and related products	67.223	−1.0	0.9	−2.2	0.3	0.4	2.4
0	Food	6.554	−2.3	4.8	0.4	−1.7	−2.0	8.3
01	Meat	.977	−1.3	−0.8	−1.4	−9.4	2.0	8.8
06	Sugar, sugar preparations, and honey	.925	0.5	−5.6	−0.1	3.5	0.4	−9.1
07	Coffee, tea, cocoa	2.241	−2.0	10.6	−2.4	−1.8	−2.9	18.7
1	Beverages and tobacco	1.082	0.7	3.3	−0.2	0.6	0.6	2.3
2	Crude materials	4.275	−0.2	−7.8	−5.0	−0.4	−2.2	−0.3
23	Crude rubber including synthetic and reclaimed	.410	(2)	−12.6	−7.4	−1.5	−9.8	6.2
24	Wood	.865	−3.0	−4.4	−3.2	6.2	−5.0	−2.2
25	Pulp and waste paper	.708	15.2	−18.7	−9.9	−4.3	−4.5	−1.3
28	Metalliferous ores and metal scrap	1.465	(2)	−5.8	−5.4	−3.1	2.2	0.7
3	Fuels and related products	32.776	−3.0	−6.0	−2.7	−2.4	−1.4	0.4
33	Crude petroleum and petroleum products	30.653	−3.1	−4.8	−1.6	−2.6	−1.6	1.0
4	Fats and oils	.226	14.4	−56.0	−21.8	−14.7	−24.9	−12.2
5	Chemicals and related products	3.475	−2.4	−3.0	−1.4	−0.8	−0.4	−0.3
6	Intermediate manufactured products	13.520	−0.4	−2.5	−2.7	−0.5	0.9	−0.1
67	Iron and steel	3.127	3.5	−4.4	−2.2	−0.7	−0.8	−0.7
68	Nonferrous metals	3.123	−7.9	−7.9	−6.2	0.5	1.7	−3.9
7	Machinery and transport equipment	25.442	−1.2	4.2	−1.3	1.0	0.9	3.6
73	Metalworking machinery	.755	−6.1	9.1	−4.0	4.9	4.1	4.1
75	Office machines and automatic data processing equipment	1.217	−4.9	1.6	−2.8	0.2	1.0	3.8
76	Telecommunications, sound recording and reproducing equipment	2.785	−3.8	−3.0	−1.4	−1.3	−0.6	0.3
77	Electric machinery and equipment	3.396	−9.3	−3.6	−5.0	2.2	−3.0	2.3
78	Road vehicles and parts	10.887	1.6	5.8	0.2	0.5	0.5	4.5
8	Miscellaneous manufactured articles	9.794	−0.1	0.8	−3.0	1.0	1.6	1.2
84	Clothing	2.666	7.8	−2.9	−1.3	−2.0	0.4	0.0
85	Footwear	1.232	4.8	0.1	−3.6	−0.5	4.0	0.4
87	Professional, scientific, and controlling instruments and apparatus	.628	−4.8	10.2	−4.0	3.5	7.0	3.6
88	Photographic apparatus and supplies, optical goods, watches and clocks	1.162	0.8	3.9	−2.6	0.7	1.8	4.2
89	Miscellaneous manufactured articles, n.e.s.	3.286	−8.4	1.7	−5.3	4.4	1.3	1.6

[1] This category includes indexes in addition to those shown here. For all of the indexes available in each category, see *U.S. Import and Export Indexes*, USDL–86–38 (Bureau of Labor Statistics), January 30, 1986.

[2] Data not available.

n.e.s.=not elsewhere specified.

Japan, West Germany, the United Kingdom, and France agreed to cooperate in a plan to force down the value of the dollar through intervention in foreign exchange markets. As of December, however, this decline had not retarded U.S. imports or stimulated exports, as the record trade deficit showed.

Another reason for the large trade deficit has been the rapid industrialization of Far Eastern nations following in Japan's footsteps. Besides the massive trade deficit with Japan, the United States also ran large trade deficits with other nations in the Far East. The combined trade surplus of South Korea, Taiwan, Hong Kong, and Singapore with the United States reached an estimated $25 billion in 1985.[10] These nations are aggressively entering automobile, consumer electronics, and semiconductor markets.[11] This has led to lower prices for many of these goods on world markets.

The Latin American debt problem also had a negative effect on U.S. foreign trade in 1985. It is estimated that the region's total foreign debt will reach $360 billion for the year.[12] Brazil is most heavily in debt, owing $100 billion, with Mexico not far behind at $97 billion.[13] All the debtor nations need hard currency to repay loans from Western banks and The International Monetary Fund. In an effort to obtain the currency, these countries have curtailed imports, which has dramatically hurt U.S. export trade. U.S. exporters to Latin America are further hampered by the appreciation of the dollar against many of these nations' currencies.

Price developments discussed in this article are based on data from the BLS International Price Program. That program produces import and export price indexes based on the Standard Industrial Trade Classification scheme. Both indexes use a modified Laspeyres formula. Price data are collected for more than 14,000 products, and are not seasonally adjusted. Import price indexes are weighted by the 1980 Tariff Schedule of the United States Annotated (TSUSA). Export price indexes are weighted using the 1980 Schedule B

classification system of the U.S. Bureau of the Census. In addition, the International Price Program, in 1985, also started producing SIC-based indexes and Bureau of Economic Analysis "end-use" price indexes.

Import price developments

Energy. The decline in world energy prices continued to lower U.S. import prices. This was reflected in the price index for imported fuels and related products, which decreased 6.0 percent for the year after a 3-percent drop in 1984. This index comprises 32.78 percent of the all-import index. The crude petroleum index fell 3.8 percent and the natural gas index decreased 23.9 percent. (These two index movements represent prices through November 1985.)

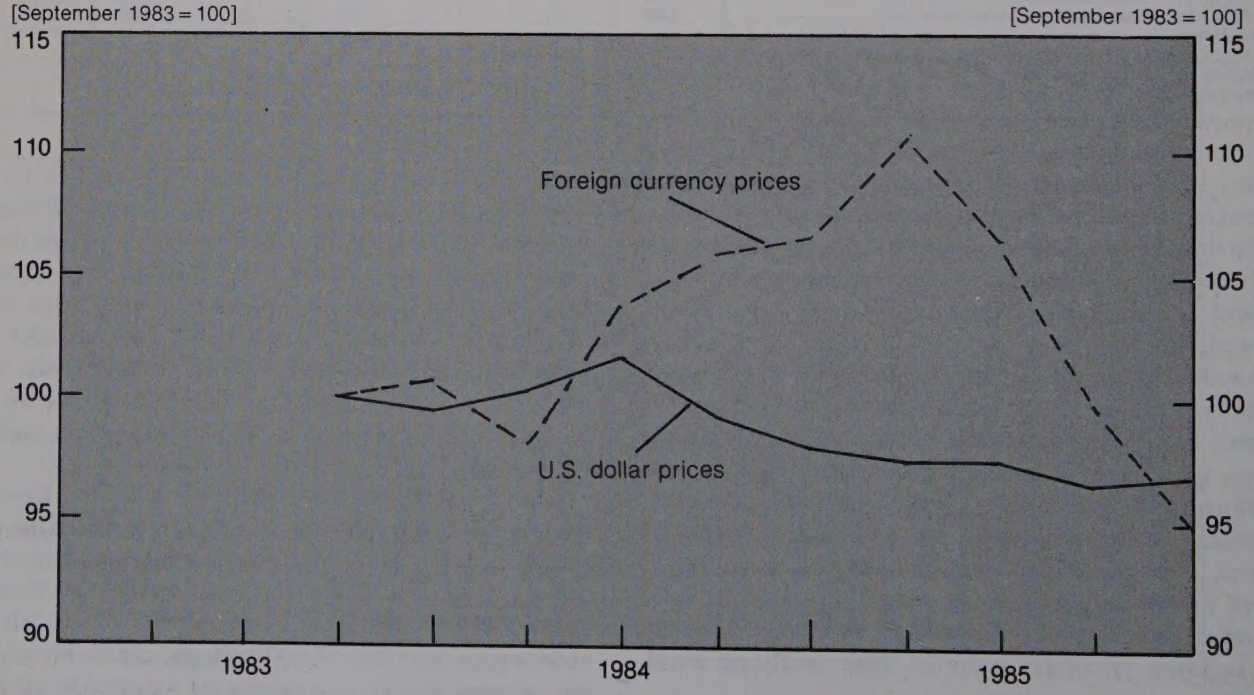
U.S. average monthly imports of crude oil and petroleum products declined 7 percent from their 1984 level, and 27 percent since August 1980.[14] (See chart 5.) Much of this decrease can be attributed to greater fuel efficiency in automobiles and a switch from crude oil to coal and natural gas by many industrial consumers.[15] The decline in U.S. crude oil imports has greatly affected many OPEC nations, especially Saudi Arabia. From 325 thousand barrels of crude oil a day in 1984, Saudi Arabian imports had declined to 167 thousand barrels a day by 1985. Total U.S. imports of OPEC crude oil in 1985 were 1,825 thousand barrels a day, down 11 percent from 1984 and 58 percent from 1980.[16]

Since 1982, the United States' major source of foreign crude and petroleum products has been non-OPEC producers. Imports of crude oil and petroleum products from these nations were 23 percent greater in 1985 than in 1980, but were down 5 percent from 1984 levels. The number of barrels of Canadian and Mexican crude imports increased during 1985, but imports of U.K. crude fell 22 percent over the year.[17]

In September, OPEC representatives met in Switzerland and decided to drop the cartel's official price 50 cents per barrel for heavy crude and 20 cents per barrel for medium crude. The cartel's previous official price of $26.50 a barrel for heavy crude had been $2 above the spot market price.[18] Saudi Arabia was the only OPEC member to actually sell heavy crude for that amount. As a result, in July, Saudi output hit its lowest production level in 20 years. For several years, the other OPEC members have routinely sold their crude at a discount or through barter agreements and so have captured potential Saudi Arabian sales.[19]

As of October 1, 1985, Saudi Arabia decided that it was no longer going to follow the cartel's official prices. In order to get production up, Saudi Arabia began the practice of "net-backing" prices. This involves the linking of crude oil prices to those of refined products. With Saudi Arabia cutting prices to some $2 below the official cartel price, that nation's production increased to 4.2 million barrels a day

Chart 2. Quarterly indexes of U.S. dollar and foreign currency prices for U.S. exports, 1983-85



SOURCE: Bureau of Labor Statistics, based on data from the Bureau and from the Morgan Guaranty Trust Co.

from 2 million barrels a day. At year's end, Sheik Yamani, the Saudi Arabian oil minister, announced plans to keep production at the higher levels even if it forced prices below $20 a barrel, which it did in January 1986.[20]

Most non-OPEC oil producing nations cut their prices for crude throughout 1985. In November, however, Mexico and two Canadian companies increased their prices for crude oil. Since 1983, Mexico had conformed to OPEC pricing and production policies. This situation existed until July 1985, when that country cut its prices for Isthmus light crude by $1.24 and for heavy crude by 77 cents a barrel.[21] But in November, Mexico responded to a firming up of oil prices and increased demand for light crudes by raising the price of its Isthmus light crude by 76 cents. In the same month, Canada's Imperial Oil Ltd. and Petro Canada raised their prices for Alberta 40-degree light crude oil by $1.58 and $1.20 respectively.[22] Throughout November, crude oil prices rose on the spot market as oil companies kept inventories low in expectation of price decreases in December or early 1986. At that time, the full impact of Saudi Arabia's increased production was expected to cause a glut of oil on the world market.

By December, U.S. stocks of heating oil for the winter season were at an all-time low. Because domestic refineries had extra capacity and foreign heating oil was available, there was no concern about a shortage in heating oil when seasonal demand picked up.[23] However, spot market prices for heating oil had increased in the last half of the year. In July, heating oil was selling on the spot market for $28.50/bbl, but by the end of November, the price had reached $38.50/bbl.[24] This resulted from high European demand, and the fact that the Europeans were offering a premium to refiners. In September, inventories were 18 million barrels below 1984 levels and just 13 million barrels above spot shortage levels.[25]

During the winter of 1984–85, U.S. natural gas use was 1.9 percent below the previous year's levels. The forecast for winter 1985–86 is for an increase in natural gas consumption in the 3-percent range, with a concomitant growth in imports of 0.04 trillion cubic feet.[26] Practically all of the increase in imports will be coming from Canada.

From 1975 to 1984, Canadian natural gas prices were set by the government. However, in November 1984, Canada started deregulating natural gas prices, with the wholesale price of natural gas in Toronto serving as the benchmark for sales to the United States. Prices fell as a result of the deregulation, and Canadian natural gas exports to this country increased.[27] Further deregulation in November 1985 was designed to help Canadian producers become price competitive with Western U.S. natural gas producers. According to Canadian law, an exporter cannot sell natural gas to the United States at prices below those offered to purchasers in neighboring provinces. Still, at a floor of $2.19 per thousand cubic feet, yearend 1985 prices were 26 percent less than the previous Toronto benchmark price.[28]

Table 2. Percent change in Export and Import Price Indexes by end-use category, December 1984–85

End-use category	Quarterly				Annual	
	Dec. 84 to March 85	March 85 to June 85	June 85 to Sept. 85	Sept. 85 to Dec. 85	Dec. 83 to Dec. 84	Dec. 84 to Dec. 85
Imports						
Food, feeds, and beverages	0.3	−1.7	−1.4	7.1	−2.1	4.1
Raw materials, except petroleum	−4.7	−0.5	−0.4	−1.6	−0.7	−7.1
Raw materials, durable	−3.8	0.1	−0.4	−1.2	−3.0	−5.3
Raw materials, nondurable	−5.7	−1.2	−0.4	−1.8	1.7	−8.8
Petroleum and petroleum products	−1.5	−2.7	−1.5	0.7	−2.7	−4.9
Capital goods, except auto.	−3.1	1.6	1.3	2.5	−3.5	2.2
Nonelectrical machinery	−2.6	1.3	3.2	3.3	−2.5	5.1
Automotive, including parts	0.2	0.5	0.5	4.7	1.3	5.9
Consumer goods	−1.6	−0.1	1.6	1.5	0.7	1.4
Consumer goods, durable	−1.5	0.0	2.0	1.9	−2.6	2.3
Manufactured, durable	−1.3	0.5	1.7	2.1	−1.8	3.0
Consumer goods, nondurable	−1.5	−0.5	1.4	0.8	5.1	0.1
Exports						
Food, feeds, and beverages	−1.8	−0.7	−5.8	1.7	−12.6	−6.6
Raw materials	−1.5	−0.4	−0.7	−0.3	−1.6	−2.9
Raw materials, durable	−0.8	−1.1	−0.5	−0.1	−4.5	−2.5
Raw materials, nondurable	−1.8	−0.1	−0.8	−0.4	−0.5	−3.1
Capital goods, except auto.	0.6	0.4	0.0	0.0	3.5	0.9
Automotive, including parts	0.9	1.2	0.1	1.0	1.7	3.3
Consumer goods	0.1	0.2	0.8	−0.2	1.2	0.9
Consumer goods, durable	−0.2	0.1	1.2	−0.4	0.4	0.7
Consumer goods, nondurable	0.6	0.4	0.2	0.0	2.0	1.2

Machinery and transport equipment. Prices for imported machinery and transportation equipment were up 4.2 percent in 1985, after slipping 1.2 percent in 1984. (See chart 6.) This index is heavily influenced by fluctuations in the value of the U.S. dollar. Much of the machinery and transportation equipment imported to the United States comes from Japan and West Germany, nations whose currencies appreciated against the dollar in 1985. The weakening of the dollar was reflected in the rise of the index through the last three quarters of the year.

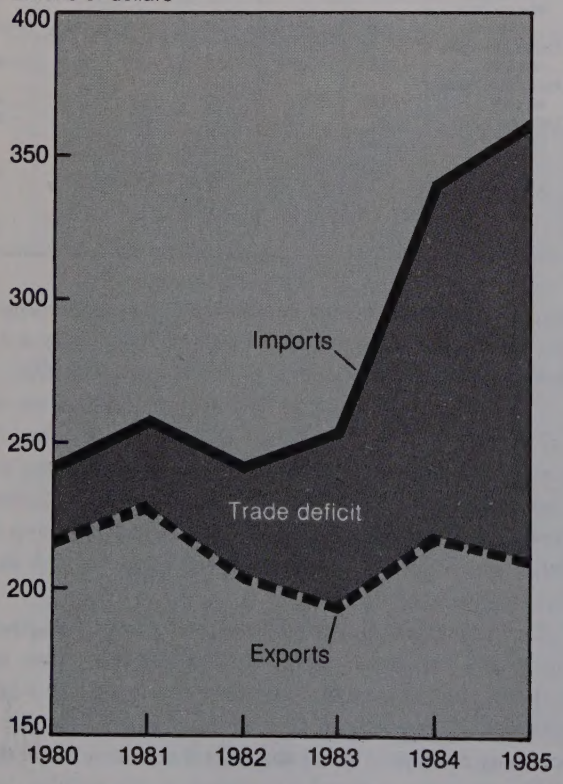
The index for imported machinery and transportation equipment represents 25 percent of the all-import index. In 1985, the value of these imports reached $141.7 billion, up from $123.1 billion the previous year.[29] As the U.S. economy continued to expand, albeit at a slower rate than in 1984, domestic demand for capital goods such as looms, lathes, pumps, and pistons, and for consumer items such as vehicles, video cassette recorders, and microwave ovens,

continued to grow. Much of this demand was met by imports. Indeed, import penetration in the U.S. machinery, electronics, and mechanical components markets has been growing steadily for more than a decade.[30]

Import penetration in the automobile industry also increased in 1985. Despite Detroit's big late summer sales campaign, both Japan and West Germany managed to capture larger shares of the domestic market. Overall, car and truck sales hit record highs, with total units sold reaching 15.7 million.[31] Of these, 74.3 percent were American made, 20.2 percent Japanese, and 3.8 percent German. Comparable 1984 shares were 76.5, 18.4, and 3.3 percent respectively.[32]

The ceiling on the voluntary restraint agreement covering Japanese auto exports to the United States was raised substantially in April of last year. From April 1984 to April 1985, Japanese manufacturers had limited auto shipments to the United States to 1.85 million units. In April 1985, however, they announced that they would raise the yearly limit to 2.3 million vehicles. As a result, Japanese auto shipments to this country as of October 1985 were 36 percent greater than comparable 1984 figures.[33] The yearend strengthening of the yen prompted Japanese producers to raise prices, but analysts doubt this will stem strong sales gains.[34]

Chart 3. Annual volume of U.S. exports and imports of merchandise, 1980-85



SOURCE: U.S. Department of Commerce.

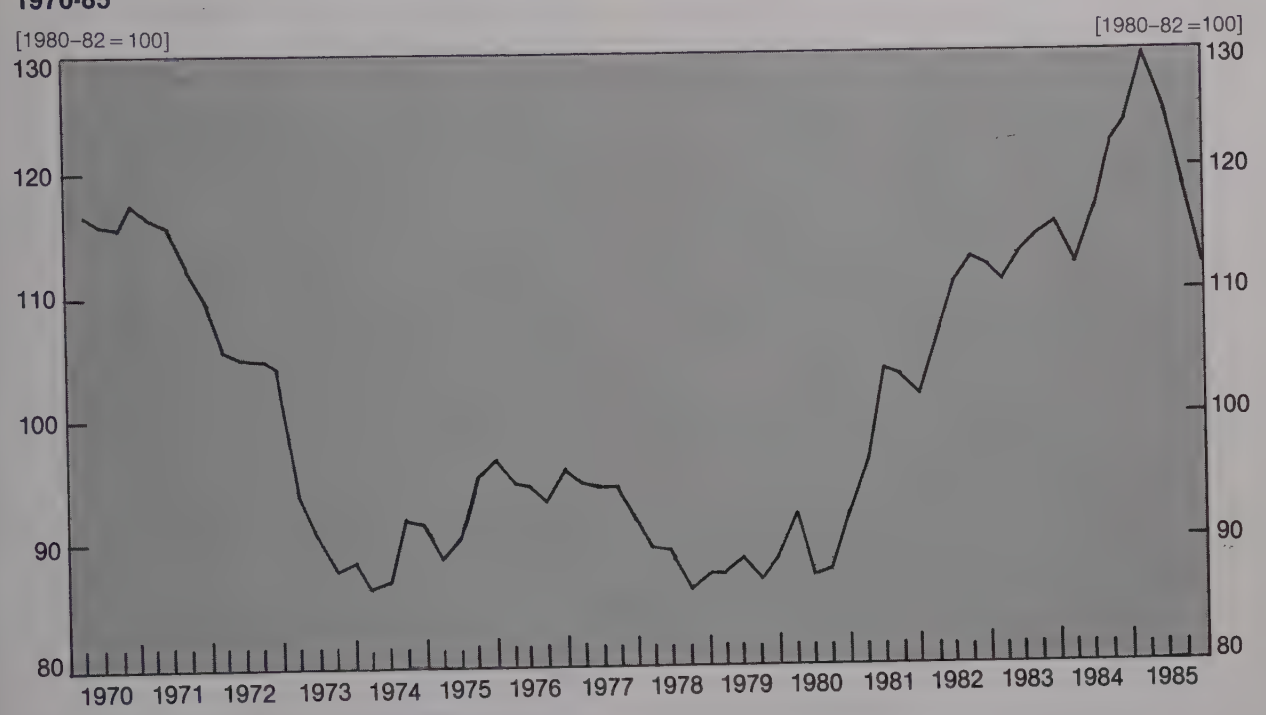
With fuel costs no longer rising rapidly, and disposable incomes increasing, U.S. demand for larger, more luxurious cars has risen in the last few years. The Japanese have altered their import product mix to reflect this change in tastes. With supply limited by the voluntary export restraints, Japanese auto makers have improved comfort and performance features in order to raise prices and profits.[35] This is not completely reflected in the automobile import index, which tracks a fixed basket of automotive styles and factors out price increases due to quality changes in the products priced. Thus the index advanced 6.1 percent for 1985, mirroring moderate price increases for comparable base models. Consumers, however, saw higher prices, and sportier cars, in dealer showrooms.

In recent years, domestic auto makers have responded to increased competition by cutting costs, modernizing plant and equipment, and forming joint ventures with their Japanese rivals. These joint ventures will provide U.S. manufacturers firsthand exposure to Japanese production, inventory, and managerial techniques which have made them leaders in small car production. In turn, the Japanese gain a solid foothold in the lucrative U.S. market. Should the U.S. Congress enact domestic content or import quota legislation, the Japanese will continue to profit from the estimated 1.2 million vehicles that the joint ventures will produce annually in this country by the end of the decade.

Electrical machinery and equipment imports decreased in volume and price last year. U.S. firms imported $18.2 billion worth of these goods in 1985, a 3.3-percent drop from 1984.[36] The import price index for this product group fell 3.6 percent for the year, continuing its downward trend.

Semiconductors constitute roughly 40 percent of the weight of this index. Spurred by increases in spending on personal computers, home electronics, aerospace, and defense in 1984, electronics components manufacturers here and abroad churned out millions of memory chips, transistors, rectifiers, and similar devices. Advances in technology and increasing economies of scale resulted in sizable per-unit cost savings for these products. The explosion in personal computer spending eased in 1985, however, leaving semiconductor supply far ahead of demand. This glut has depressed prices worldwide, causing the import price index for electrical components to fall 14.6 percent for 1985. The glut is expected to last well into 1986.[37] Prices for some specialty items and memory devices began rising late in 1985 as inventories were slowly depleted and buyers feared possible shortages in the spring.[38] In addition, Japanese firms raised their semiconductor prices late in 1985 in response to allegations by the U.S. industry that Japanese goods were being sold in this country at less than cost.[39] The yen's appreciation against the dollar in the fourth quarter also contributed to the price increases. These factors, however, were not enough to reverse the index's downward trend.

Chart 4. Index of the effective real exchange rate of the U.S. dollar, quarterly data, 1970-85



NOTE: Quarter is represented by data for the last month.
SOURCE: International Economics Department, Morgan Guaranty Trust Co.

Price increases were welcome news to U.S. chip makers. In recent years they have been operating under ever lower price ceilings imposed by the large volume of Japanese chips on world markets. For example, one estimate puts Japan in control of 90 percent of the world market for 256K dynamic RAM chips.[40] Domestic chip manufacturers suffered heavy losses and many plants were closed this past summer.[41]

Computer and automated data processing equipment sales growth slowed markedly in 1985, after 25-percent annual growth in the previous 3 years.[42] Some sectors of the market, such as personal computers, actually suffered sales declines.[43] A slowdown in capital spending by the manufacturing sector, which usually accounts for a third of computer sales, and uncertainty surrounding tax reform and its effect on investment contributed to the sales slump.[44] In addition, many of the computers already in use have not delivered promised increases in productivity, which has tended to slow investment in new equipment.[45] Overall, import prices rose 1.6 percent for the year. Prices rebounded modestly in the last half of the year as the dollar weakened against the currencies of our major suppliers, primarily the Japanese.

Prices of imported metalworking and machine tool equipment rose strongly in 1985, boosting the index for those goods 9.1 percent. Buyers stressed reliability, fast delivery, and good service among their reasons for selecting imports over domestic equipment.[46] Indeed, imports rose 23 percent over the first three quarters of the year, capturing over half the U.S. market.[47] Because Japan is America's main supplier of foreign made machine tools, the yearend strengthening of the yen increased prices substantially.

New orders placed with U.S. machine tool manufacturers declined 13.2 percent in 1985,[48] further evidence of the failure of the manufacturing sector to expand in line with the economy as a whole. The curtailing of Federal investment tax credits and the lengthening of depreciation schedules also has made domestic producers apprehensive, as they feel such changes could stall economic growth throughout industry.

Food. Prices for imported food rose 4.8 percent in 1985 after the previous year's decline of 2.3 percent. This index makes up roughly 6.6 percent of the all-import price index. Price increases for coffee, tea, and cocoa and for fruits and vegetables were offset by price declines for meat, sugar, and fish. In fiscal 1985, U.S. food imports were valued at $19.77 billion. Because of declining agricultural exports, the Nation's agricultural trade surplus shrank from $19.10 billion in fiscal 1984 to $11.42 billion in fiscal 1985.[49]

After three quarters of modest declines, imported coffee prices soared 26.4 percent in the last quarter of 1985. This resulted in a 16.7-percent increase in coffee prices for the year. However, U.S. coffee consumption was down from 1.99 cups per person per day in 1984 to 1.83 cups per day.

Last year was also the first year that more soft drinks were consumed than coffee.[50]

The International Coffee Organization (ICO), which is composed of both producing and consuming nations, had increased the export quotas for producing nations in 1984 to 61 million bags. These more liberal quotas may have resulted in the large glut of coffee on the market and an 8-percent reduction in coffee prices over the first three quarters of 1985. The 1984 ICO agreement was intended to keep coffee prices between $1.20 and $1.40 a pound,[51] but by September 1985 the price was down to $1.17 a pound.[52] This prompted the ICO to decrease the quota to 58.0 million bags.[53] This, and more importantly, news of a Brazilian drought in the summer of 1985 sent coffee prices soaring at the end of the year.

Tea prices were on a steep decline in 1985, as an exceptionally good 1984 harvest in Sri Lanka yielded plentiful supplies. Unfortunately, the 1985 Sri Lankan tea crop was of a poor quality because of heavy rains during the growing season. The 1985 harvest was predicted to be 208 million kilos, the smallest crop since 1960.[54] The shortfall in supply is expected to drive up the price of teas in 1986.

In fiscal 1985, the quantity of tea imported by the United States decreased 8 percent from the previous year's level.[55] Demand in this country centers upon the lower priced teas and herbal teas. Thus Argentina, a grower of lower priced teas, exports more of the commodity to the United States than do traditional suppliers such as Indonesia. Tea consumption in the United States declined 2 percent for the year, as cooler weather in the spring and a late summer reduced consumption of iced tea, the most popular form of the product consumed in this country.[56]

Cocoa prices were also down in 1985. The Ivory Coast, Brazil, Malaysia, Ecuador, and Indonesia all had harvests of record proportions during crop year 1984–85. Because of these developments and prospects of an equally large 1985–86 harvest, cocoa prices for the first three quarters of 1985 fell to $2,155 per ton from $2,342 per ton in calendar 1984.[57]

In 1985, prices for imported meat continued their decline. The meat import price index decreased 0.8 percent after the previous year's 1.3-percent drop. Although cow slaughter was down in 1985, the weights of U.S. cattle reached a record level.[58] This caused higher than expected domestic beef supplies, and thus sharp declines in imported meat prices, especially early in the year.[59] This situation was corrected by the fourth quarter of the year.

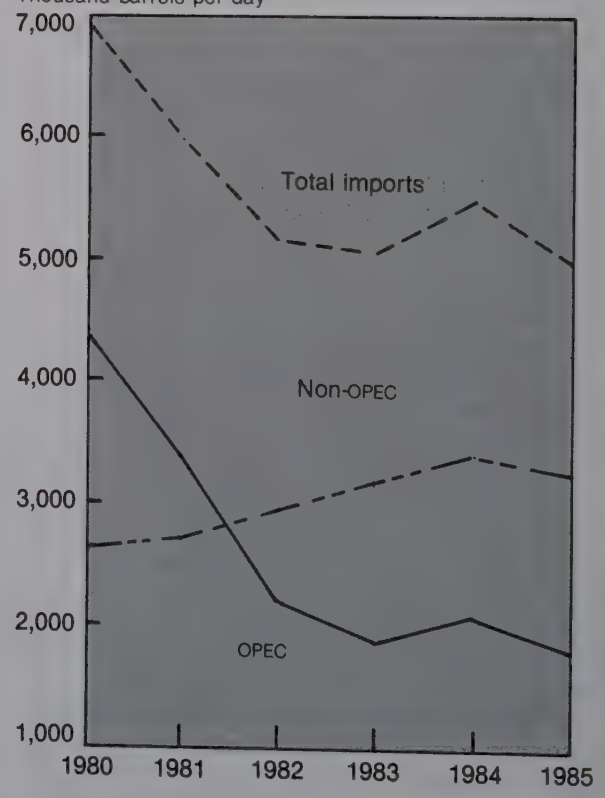
More beef exports come to this country than to any other. However, in recent years, meat imports have leveled off because of the strength of the U.S. Meat Import Law, a lowering of the amount of exportable beef worldwide, and agreements with foreign beef producers to reduce their exports to this country.[60] In 1985, the amount of meat imported into the United States increased only 4.0 percent.[61] Pork imports were 1,128 million pounds, up 15 percent from 1984.[62] Canada and Denmark should account for the greatest increase in pork exports to the United States.

Sugar and sweetener import prices decreased 5.6 percent in 1985. The United States imports one-third of all the sugar that it consumes.[63] The leading sugar exporters are Cuba, the European Community (EC), Australia, Brazil, and the Philippines. In recent years, there has been an oversupply of sugar on the world market. Much of the large buildup of sugar stocks can be traced to policies of the EC. Prior to 1977, the EC was a net importer of sugar, but because of increased production and export subsidies, the Community has now become a net sugar exporter.

U.S. demand for sugar has been decreasing in recent years as high fructose corn syrup (HFCS) and artificial sweeteners are substituted for sugar. Total domestic demand in 1985 is expected to be 8 million tons, 6 percent less than the amount consumed in 1984.[64] In 1981, the United States established quotas for imports of sugar, because their cheaper price was detrimental to domestic producers. The 1985 quota was reduced to 1.8 million tons from 2.5 million tons.

Miscellaneous manufactures. The import price index for

Chart 5. Annual U.S. imports of crude oil and petroleum products, total and for OPEC and non-OPEC sources, 1980-85



SOURCE: U.S. Department of Energy, Energy Information Administration.

niscellaneous manufactured articles rose 0.8 percent in 985, having declined a scant 0.1 percent in 1984. A 2.9-ercent decrease in clothing prices could not offset the in-reases recorded for footwear; professional, controlling, and cientific instruments; and photographic instruments and upplies.

The U.S. Congress passed a bill in late 1985 that would ıave restricted imports of textiles, apparel, and footwear. The bill was designed to maintain imports' share of the U.S. extile and apparel market at the level they would have held ıad the 1974 Multi-Fiber Arrangement been strictly en-forced. It is estimated that Far East exporters have increased shipments to the United States 19 percent over the past 4 years.[65] The textile bill, which would have reduced imports by 40 percent, was vetoed by President Reagan in late December. Prior to the veto, however, some of the smaller foreign manufacturers were cutting prices to acquire a larger market share before the proposed quotas could take effect. Also, there were reports of overproduction by South Korean apparel manufacturers.

After several investigations, the U.S. International Trade Commission (ITC) ruled in June 1985 that the domestic footwear industry was being injured by imports of nonrubber footwear. The ITC recommended that the market share of imported footwear be reduced from 71 percent to 68 percent. Lower labor costs have helped foreign shoe manufacturers capture the major share of the U.S. market: the average hourly wage of a shoemaker is $6.71 in the United States, but in Brazil and Taiwan, both major shoe exporters, the averages are $0.85 and $0.91 per hour, respectively.[66] The import price index for footwear declined during the first two quarters of 1985 and then increased during the last half of the year. Prices for U.S. wetblue hides, the main source of shoeleather, began to rise at midyear, boosting the costs of world shoe production. However, the fluctuation in footwear prices resulted in only a 0.1-percent index increase in 1985.

Import prices for photographic apparatus and supplies, optical goods, and watches and clocks increased 3.9 percent. The surge in consumer spending has spurred demand for photographic equipment. The amateur photography market has shifted away from instant and 110 cartridge cameras toward 35 mm cameras, especially compact cameras priced under $100.[67] The 35 mm market is dominated by Japan. In the past 2 years, there has been a great deal of product innovation in this area. Also, increased competition among Japanese firms and their desire to increase U.S. market share caused prices to decline early in 1985. As the year wore on, however, the weakening of the dollar and the approaching Christmas shopping season caused prices to increase. The price for imported photographic supplies slid in 1985 as domestic and Japanese firms competed aggressively in the U.S. market for sensitized film, paper, and plates.

The import price index for collectors' pieces, including gold and silver coins, registered a 4.8-percent decrease in 1985. Prices took a 12.3-percent tumble in the first quarter as investors switched to U.S. dollar denominated investments such as bonds. Prices rebounded in the second quarter as a South African gold mine strike cut gold supplies. In late September, the U.S. Government announced that it was suspending the importation of the South African krugerrand in retaliation for the South African policy of apartheid. Though this should have affected demand for gold coins, prices fell in the fourth quarter, in part because domestic interest rates hit a 6-year low in November.[68]

Table 3. Changes in Export Price Indexes for selected categories of goods, December 1984–1985

SITC Category	Description	Percent change						
		Annual			Quarterly			
		Percentage of 1980 trade value	Dec. 1983 to Dec. 1984	Dec. 1984 to Dec. 1985	Dec. 1984 to March 1985	March 1985 to June 1985	June 1985 to Sept. 1985	Sept. 1985 to Dec. 1985
	All commodities[1]	100.000	−1.4	−1.3	−0.6	0.0	−1.0	0.3
0	Food	12.768	−11.3	−3.0	−0.7	−1.9	−4.0	3.8
04	Grain and grain preparations	8.341	−12.0	−6.2	−0.5	−2.3	−8.5	5.4
08	Animal feeds, except unmilled cereals	1.332	−30.0	1.2	−11.7	−5.8	10.3	10.2
1	Beverages and tobacco	1.229	−0.2	−2.7	−1.4	0.2	−0.4	−1.1
2	Crude materials	10.948	−9.6	−8.1	−3.8	−0.7	−3.6	−0.1
3	Fuels and related products	3.691	0.5	−3.1	0.4	−0.9	−1.6	−1.0
4	Fats and oils	.911	21.2	−31.4	−4.0	1.8	−20.8	−11.4
5	Chemicals and related products	9.578	−0.9	−1.1	−0.7	−0.2	0.3	−0.5
51	Organic chemicals	2.289	−5.3	0.7	−1.0	2.9	0.6	−1.8
56	Fertilizers, manufactured	1.036	−2.1	−5.1	−2.4	−5.0	2.2	0.2
6	Intermediate manufactured products	10.544	0.4	−1.2	−1.0	−0.2	0.0	0.0
7	Machinery and transport equipment, except military and commercial aircraft	35.261	3.3	1.3	0.6	0.5	0.1	0.1
71	Power generating machinery and equipment	3.943	8.5	0.1	−1.3	1.3	−0.2	0.3
72	Machinery specialized for particular industries	5.784	1.5	1.8	1.0	0.5	0.2	0.1
73	Metalworking machinery	.829	2.2	4.3	1.0	1.1	0.8	1.3
75	Office machines and automatic data processing equipment	3.990	−1.1	−2.0	−0.5	−0.9	−0.1	−0.5
77	Electrical machinery and equipment	4.738	4.4	−0.7	0.3	1.0	−0.7	−1.3
78	Road vehicles and parts	6.726	2.3	2.4	1.0	0.6	−0.1	0.9
8	Miscellaneous manufactured articles	7.397	−0.9	1.0	0.2	0.9	−0.1	0.0

[1] This category includes indexes in addition to those shown here. For all of the indexes available in each category, see *U.S. Import and Export Indexes*, USDL–86–38 (Bureau of Labor Statistics), January 30, 1986.

Crude materials. The crude materials import index, which represents 4.2 percent of all imports, declined 7.8 percent for the year because of oversupply of basic commodities. Global stocks of rubber, lumber, and metalliferous ores all exceeded demand.

Indonesia and Thailand continued expanding rubber out-

put despite flat demand. The increasing switch from bias ply to radial tires has left excess rubber on world markets. Longer wearing radial tires require less frequent replacement, and hence, less rubber than their bias ply counterparts. The resulting oversupply of rubber has driven prices down. The imported crude rubber index declined 12.6 percent for the year despite some price firming in the fourth quarter. In response to declining prices, Malaysian growers are switching from rubber to palm planting in order to increase future earnings.

Despite mill closings, the U.S. lumber industry continued to suffer from overcapacity in 1985. This dampened corporate profits and import prices alike.[69] The index for wood imports fell 4.4 percent for the year, reflecting a number of developments here and abroad. In 1985, an estimated 1.736 million homes were started in the United States, slightly less than the 1984 total of 1.749 million units.[70] The decrease in housing starts may reflect the decision of potential homebuyers to wait for mortgage rates to bottom out.[71] In addition, the strong building boom of 1982–84 may have satisfied pent-up housing demand.

The pulp and waste paper index plunged nearly 20 percent for the year, as Brazil, Chile, Spain, Portugal, and South Africa stepped up pulp production in order to earn foreign currency.[72] Lack of profits in the U.S. lumber industry, coupled with the prospect of tax reform which would raise the cost of farming timberland, forced many U.S. firms to abandon all or part of their lumber business in 1985.

Imported metalliferous ore prices also declined, as domestic aluminum and stainless steel production decreased last year. In 1985, primary aluminum production in the United States was 14.6 percent below 1984's volume of 4.518 million short tons.[73] Meanwhile, U.S. stainless steel production for the year was 4 percent lower than 1984 levels.[74] These declines dampened demand for bauxite and alumina used in aluminum production, and for ores of tantalum, zinc, columbium, and other metals used in steel alloying. Imported metalliferous ore prices fell 5.8 percent as a result.

Intermediate manufactures. In October 1984, the Reagan administration negotiated voluntary export restraints with 15 nations supplying steel to the United States. The goal of these restraints was to limit foreign suppliers to 18.5 percent of the U.S. steel market. Through the first three quarters of 1985, imports from these countries were 14.4 percent below the previous year's 9-month mark.[75] But imports from other nations continued to rise. In fact, 18 nations without any known steelmaking facilities were listed as suppliers to the United States last year, including such small countries as Antigua, the Netherlands Antilles, New Caledonia, and the Bahamas. Some of these shipments were in the form of processed steel products, which had been finished at facilities in the exporting nations. In other cases, however, U.S. steelmakers charged that major producing countries had violated their quota agreements by shipping steel through neighboring nations in order to avoid exceeding their own quotas.[76] Altogether, foreign steel captured an estimated 25.2 percent of the U.S market last year, down slightly from 26.4 percent in 1984.[77]

These imports encountered falling prices in the United States, as a result of overcapacity and declining demand. By one estimate, annual Free World steel production capacity currently is 625 million metric tons, whereas Free World demand is only 440 million metric tons.[78] This excess supply comes at a time when American users are reducing demand for steel,[79] because of an increase in automobile imports and a continuation of the switch from steel to plastics and other metals in the manufacture of packaging and automotive products. Reduced consumption led to price cutting by suppliers. The import price index for iron and steel declined 4.4 percent over the course of the year.

The nonferrous metals fared little better last year. In late October, the International Tin Council announced it could no longer afford to purchase excess tin stocks from producers in order to shore up the metal's price on the London Metal Exchange.[80] This decision sent tremors through the Exchange; tin trading was suspended, and prices of nickel, zinc, and other metals fell as dealers sold contracts for those commodities quickly to raise funds to cover their potential tin losses. At the time of the trading suspension, metals dealers held contracts for more than 50,000 tons of tin at the Exchange's price of $12,100 per ton.[81] The extent of traders' losses will not be known until trading resumes. Off the London Metals Exchange, tin was selling for $2,000 below the Exchange price. If prices fall rapidly once trading is resumed, the world's major metals traders could be forced into bankruptcy. In the United States, prices for imported tin fell 19.6 percent in the fourth quarter of 1985, and 16.5 percent for the year as a whole.

Platinum and silver prices were depressed early in the year, as continued low rates of inflation in the United States reduced the appeal of the two metals as inflationary investment hedges. As interest rates declined, however, platinum and silver became more attractive for investors whose return on paper assets was falling. Also, demand from the U.S. auto industry, which uses platinum in emissions control devices, increased during the second quarter as Detroit reported its highest quarterly output for the year. Fears that supplies from the Republic of South Africa, the world's number one platinum producer, might be interrupted, drove up prices late in the year.[82] Altogether, the index finished the year down 9.7 percent.

Copper import prices rose slightly in 1985, as U.S. metals firms continued to reduce capacity and to rely heavily on imports. Third World nations such as Chile and Zambia have been exporting copper extensively in order to obtain foreign exchange to service foreign debt.[83] U.S. copper imports as a percentage of consumption reached an estimated 27 percent last year, after claiming 23 percent of the

J.S. market in 1984.[84]

Nickel import prices rose in the beginning of 1985, as output failed to keep pace with demand.[85] The United States imports most of the nickel that it uses in petroleum refining, and in chemical, electrical, construction, and aircraft industries. Although activity in these industries remained vigorous late in the year, uncertainty surrounding the fate of the London Metal Exchange and its dealers caused the metal's price to fall by yearend. Overall, the import index for nickel was down 5.5 percent for the year.

Fats and oils. The fats and oils import index plummeted 56 percent for the year, reflecting abundant stocks of Malaysian palm oil, Philippine coconut oil, Argentinian sunflower seed oil, and Brazilian cottonseed oil.[86] Malaysian palm oil production, for example, was 24 percent higher in October 1985 than in October 1984.[87]

Export price trends

Machinery and transport equipment. Price advances in exports of U.S.-made machinery and transport equipment moderated in 1985. After rising 3.3 percent in 1984, the export index for these products increased a mere 1.3 percent last year. The index encompasses more than a third of the all-export index.

Prices for exported general industrial machinery, metal working machinery, specialized machinery, power generating machinery, and autos all rose. On the other hand, prices of exported semiconductors and automated data processing equipment were lower. Telecommunications equipment export prices were virtually unchanged for the year.

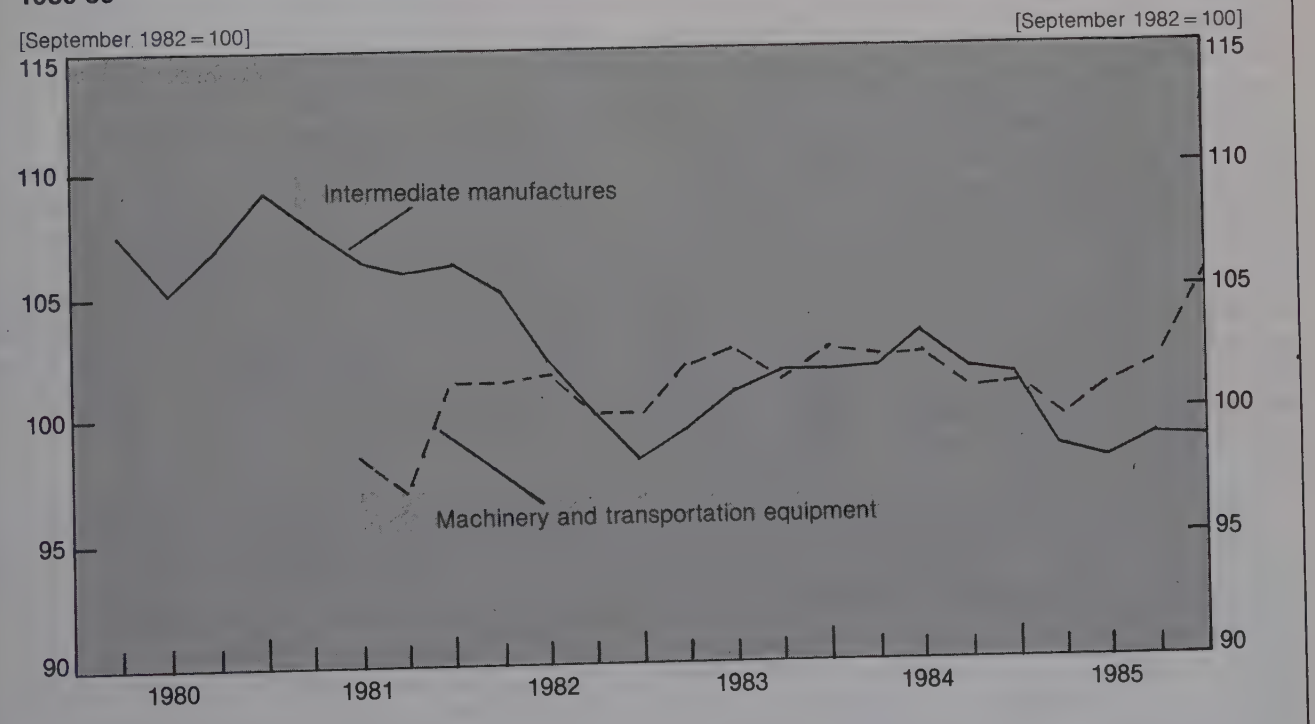
The dollar volume of machine tool exports in the first three quarters of 1985 was 12 percent higher than for the comparable period of the previous year.[88] Prices for these items advanced 4.3 percent for 1985 as a whole, continuing their strong upward trend.

The index for power generating machinery advanced a slight 0.1 percent, fueled by the 2.4-percent price rise for engine replacement parts.

The road vehicles and parts index advanced 2.4 percent for the year. This also was largely attributable to price increases for parts. In the fourth quarter, however, automobile export prices rose 2.1 percent, reflecting new model year price increases. For the year as a whole, automobile export prices advanced 4.2 percent, and parts prices increased 1.8 percent.

Automated data processing equipment, telecommunications equipment, and semiconductor export prices were constrained by several factors in 1985. First, the emergence of South Korea as a low-cost producer in these fields limited the pricing power of U.S. firms in global markets. Secondly, delivery delays and uncertainty concerning the new products developed by U.S. producers for the year caused many overseas buyers to adopt a "wait and see" attitude

Chart 6. U.S. import price indexes for selected commodity groups, quarterly data, 1980-85



toward new equipment purchases.[89] Lastly, rapid advances in technology have shortened product lifespans in these areas. Fiber optics, gallium arsenide integrated circuits, and small, personal-computer-compatible hard disk drives are steadily replacing existing product lines. This resulted in price cutting to move inventories before they become obsolete.

Food. For U.S. agricultural exporters, 1985 was a difficult year. Large crop yields caused an oversupply of grain on the market, and forced export prices down. This was reflected in the U.S. export price index for food, which declined 3.0 percent in 1985. This index comprises 12.8 percent of the all-export index. A 6.2-percent decline was recorded in the grain and grain preparations index, but the index for animal feeds was up 1.2 percent. Those two indexes account for 80 percent of the export food price index. Export prices for wheat, rice, barley, yellow corn, and yellow sorghum declined.

Record yields of corn, oats, sorghum, and rice were produced in the United States in 1985, the year of the second highest total crop production ever recorded. This occured even though 7 million fewer acres of land were in production than during the previous year.[90] Coupled with large existing inventories from 1984, this development meant supply exceeded demand.[91] In addition, two of the Nation's large customers, the Soviet Union and China, increased agricultural production last year. With the competition from agricultural exporting countries strong, the U.S. share of world agricultural exports is expected to show a decline again in 1985, following a drop to $31 billion in 1984.[92]

Wheat prices were significantly lower in 1985. The export price index for wheat declined 4.9 percent for the year, compared with a decrease of only 0.2 percent in 1984. Worldwide import demand in marketing year 1985–86 was expected to be the lowest since 1979–80 because of abundant yields in many importing countries.[93] In 1984–85, there had been a record worldwide yield of wheat. In 1985–86, the yield is expected to be lower but still above the level recorded in 1983–84. Although the 1985 U.S. wheat yield is expected to be near the 1984 level, production by the United States' four major competitors (Australia, Argentina, Canada, and the EC) is expected to be 10 million tons below year-earlier levels. The declining yields of competitors were caused by planting problems and a switch to different types of crops. However, excess accumulated inventory should negate the effects of the lower yields.[94]

Both Canada and the EC experienced problems with the quality of the wheat they grew in 1985. Because of weather problems, the amount of Canadian wheat in the top two grades was down. This prompted the Canadian Wheat Board to suspend sales to all but Canada's usual customers.[95] To combat their quality problem with wheat, the EC released bread wheats from their stockpiles.

Some of the EC's agricultural policies are undermining the United States' export trade. In 1985, the Community increased export subsidies on sales to countries targeted in the U.S. export enhancement program, especially those of North Africa.[96] The U.S. program, The Bonus Incentive Commodity Program (BICEP), which was announced May 15, 1985, is designed to allow government commodity stocks to be given as bonuses to importers of designated U.S. agricultural commodities over the next 3 years.[97]

The 1984–85 worldwide production of coarse grains was 810.24 million tons. Coarse grains include barley, sorghum, corn, rye, and oats, which are primarily used as animal feeds. For 1985–86, production is expected to reach 844 million tons.[98] The United States produces one-third of the world's coarse grains, and within that, one-half of all corn grown. The corn export index was down 7.6 percent in 1985. The U.S. supplies of coarse grains were very large because of good weather and increased planting; the Nation's total 1985 production is estimated to be 271 million tons.[99] The yield of the United States' major competitors is also expected to be large. Although production by Australia and Argentina may be down, Canada, Thailand, and South Africa expect a good output. In fact, corn yields from Canada's eastern provinces are expected to exceed all previous records.[100]

Demand for coarse grains is expected to decrease by 8 percent in 1985–86.[101] This is largely attributable to lower purchases by the Soviet Union, which both boosted coarse grain production in 1985 and had a decrease in livestock. Purchases by that nation may drop as much as 10 million tons.[102] The United States' second leading export market is Japan. Although U.S. sales to Japan decreased in 1984 because of competition from Chinese and Thai corn, this situation may change as Japanese imports are expected to increase to 21.5 million tons in 1985.[103] All U.S. agricultural exports have been hurt by the strong dollar, which makes the Nation's products more expensive in foreign currencies. Also, coarse grain sales have been affected by austerity programs implemented by some of the developing countries, declining EC imports of corn and increased exports of barley, and higher U.S. agricultural support prices.[104] The support prices, which keep U.S. farm prices higher than they would be in a free market, have encouraged many nations to develop their farm sectors and to increase agricultural output.

Chemicals. The index for exported chemicals decreased 1.1 percent in 1985, after declining 0.9 percent in 1984. Historically, the United States has enjoyed a trade surplus in the chemical industry due to its leadership in product innovation. Similarly, large investments in research and development have led to greater production efficiency. The Nation's chemical industry remained relatively unscathed by the effects of the strong U.S. dollar, with exports decreasing only 2.5 percent in 1985. However, the industry is facing stiffer competition worldwide. For example, many of the

l-producing nations have set up petrochemical operations. ith abundant supplies of low-cost inputs, these producers e further contributing to world oversupply and lower ices.[105]

The problem of worldwide oversupply greatly affected e fertilizer industry in 1985. A 12- to 15-percent oversup- y of phosphate chemicals and phosphate rock on world arkets resulted in price cutting early in the year.[106] Produc- s claimed to be selling at or below production costs, and number of high-cost U.S. manufacturers were forced out f business. Prices for fertilizer components also fell over ne year. Anhydrous ammonia, a major input in fertilizer roduction, experienced a drastic reduction in export prices. The index in which this compound is included—inorganic lements, oxides, and salts—declined 13.7 percent in 1985. Toward the end of 1985, the oversupply of fertilizer began o diminish as stocks were depleted, and prices subsequently rose. In the last two quarters of the year, the export index for fertilizers rose 2.4 percent.

In 1985, the United States enjoyed an increase in exports of propylene, which is used chiefly for organic synthesis. In the past, U.S. exports of propylene have been limited to Canada and Mexico because overseas shipment of the substance requires the use of refrigerated gas carriers. In 1985, a fire in an ethylene/propylene plant in Italy significantly reduced supplies in southern Europe. This, along with the tremendous price differential between European and U.S. propylene gave U.S. producers an incentive to expand into European markets. (European prices are estimated to be $410–$415 per metric ton while U.S. prices are running about $345–$350.[107]) A Far East market also appears to be opening up. The increased demand for propylene caused prices in the export index for hydrocarbons to rise 1.8 percent for the year. □

——FOOTNOTES——

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Inflation remained mild again during 1985

Consumer prices rose by less than 4 percent, about the same as during 1982–84; the rate of increase for producer prices of finished goods was less than 2 percent, as inflation continued to be moderate for the fourth consecutive year

CRAIG HOWELL AND ANDREW CLEM

The rate of inflation in the American economy continued to be moderate for the fourth consecutive year. For the 12 months ended in December 1985, the Consumer Price Index for All Urban Consumers (CPI–U) advanced 3.8 percent, about the same as during 1982–84. Once again, the rate of increase in the Producer Price Index (PPI) for Finished Goods was even lower than the CPI's, moving up only 1.8 percent over the same 12 months. (See table 1.)

As in 1984, small increases in prices for food, energy, and other consumer goods kept the all items CPI advance moderate. Although 1985 energy prices rose more than in 1984, the increase was still under 2 percent. The indexes both for food and for commodities other than food and energy slowed noticeably, to increases of less than 3 percent. However, several categories of consumer services, such as shelter, medical care, and education, continued to register above-average increases. The CPI for services other than energy rose 5.7 percent, approximately the same as in 1984.

In 1985, the PPI for Finished Goods rose less than 2 percent for the third consecutive year, having increased 1.7 percent in 1984 and 0.6 percent in 1983. Producer prices for intermediate and crude goods actually decreased in 1985. After moving up less than 2 percent in both 1983 and 1984, the intermediate materials, supplies, and components index fell 0.3 percent, the first calendar year drop in this series since 1962. The index for crude materials for further processing fell rapidly through the first 9 months of 1985, before recovering somewhat in the fourth quarter to finish the year 5.5 percent below its December 1984 level. This was not only more than the 1.6-percent decrease recorded between December 1983 and December 1984, it was also the largest annual decline in crude material prices in a third of a century.

Much of the moderation in 1985 price movements was related to competition from imported goods. The price index for All Imports published by the Bureau of Labor Statistics fell 1.1 percent in 1985, following a 1.6-percent decline the year before. (See the article on import and export prices in this issue of the *Review*.) Whereas declines in 1984 were widespread among end-use categories of imported goods, in 1985 the downward impulse was concentrated in the categories of petroleum—down 4.9 percent—and other raw materials—down 7.1 percent. In contrast, prices for imported automobiles and parts jumped 5.9 percent over the year, partly reflecting the decline of the dollar vis-a-vis the

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Japanese yen, and the continued informal Japanese export restrictions.

The enormous volume of imported goods absorbed a substantial portion of growth in aggregate demand, so that most domestic industries continued to operate well below their potential levels of output. Total industry capacity utilization in the United States hovered around 80 percent throughout 1985; historically, this rate has approached or exceeded 90 percent once the economy is 3 years into a business cycle expansion. (The current expansion began at the end of 1982.)

Having slowed sharply in mid-1984, the general expansion of the American economy regained some vigor after mid-1985, aided by less restrictive monetary policies and a considerable drop in interest rates. Consumer spending continued to climb, undeterred by mounting consumer debts and low rates of personal saving. However, after several years of unusually strong growth, investment spending increased more slowly. Uncertainties generated by possible changes in tax laws affecting capital expenditures may have contributed to business caution on long-range commitments. The residential housing market was no stronger than it had been in 1983 and 1984, in spite of a substantial drop in interest rates over the 1983–85 span. Tighter credit eligibility restrictions by mortgage lenders effectively limited housing demand by disqualifying many potential home buyers without sufficient resources for a substantial downpayment. At year's end, there were few labor or material shortages or capacity constraints threatening to reignite inflation.

The sustained record of low inflation from 1982 to 1985 in the midst of strong aggregate economic growth has not been matched in the United States for nearly two decades. Accordingly, this article will take a different slant than those of previous years. Before focusing on the causes of 1985 price changes for particular goods and services, we will employ a long-term perspective to identify major recent trends.

Major trends

Although energy prices were a major source of inflationary pressures from 1979 to 1981, they have been the principal moderating influence during the last 4 years. In the earlier years, retailer profit margins were squeezed as consumer resistance prevented the full passthrough of increased producer prices of gasoline and fuel oil. In general, consumer prices have not reflected the volatility seen in the producer market in the subsequent period. Retail price declines have been moderated by increased State, local, and Federal excise taxes over the 1982–85 period, while dealers have been reluctant to reduce their recovered margins over the last few years. Declines in producer prices for refined products have reflected fundamental changes in the structure of the world petroleum market. During the early 1980's, consumers and businesses throughout the industrial world dramatically curtailed energy consumption in response to skyrocketing prices. At the same time, increased production of crude oil by such non-OPEC nations as Britain and Mexico

Table 1. Annual percentage changes for major categories of the Consumer Price Index and Producer Price Index, 1978–85[1]

Consumer Price Index	1978	1979	1980	1981	1982	1983	1984	1985[2]
All items	9.0	13.3	12.4	8.9	3.9	3.8	4.0	3.8
Food	11.8	10.2	10.2	4.3	3.1	2.6	3.8	2.7
Energy	8.0	37.4	18.1	11.9	1.3	−.5	.2	1.8
Commodities excluding food and energy	7.6	8.8	9.9	5.9	5.8	5.0	3.1	2.1
Services excluding energy	9.4	13.6	14.1	12.9	3.4	4.8	5.6	5.7
Food and beverages	11.6	10.0	10.1	4.3	3.2	2.7	3.7	2.8
Housing	9.9	15.2	13.7	10.2	3.6	3.5	4.2	4.3
Apparel and upkeep	3.2	5.5	6.8	3.6	1.6	2.9	2.0	2.9
Transportation	7.7	18.2	14.7	11.0	1.7	3.9	3.1	2.6
Medical care	8.8	10.1	10.0	12.5	11.0	6.4	6.1	6.7
Entertainment	5.8	6.9	9.6	7.2	5.6	3.9	4.2	3.2
Other	6.4	7.9	10.1	9.8	12.1	8.0	6.1	6.3
Commodities	8.9	13.0	11.1	6.0	3.6	2.9	2.6	2.5
Services	9.3	13.7	14.2	13.0	4.3	4.8	5.4	5.1
Producer Price Index								
Finished goods	9.2	12.8	11.8	7.1	3.7	.6	1.7	1.8
Consumer foods	11.7	7.4	7.5	1.4	2.1	2.3	3.5	.3
Energy	8.5	58.0	27.8	14.1	−.1	−9.2	−4.1	0
Consumer goods excluding food and energy	8.5	9.7	10.4	7.1	5.3	1.9	2.2	2.7
Capital equipment	7.9	8.8	11.4	9.2	3.9	1.9	1.8	2.7
Intermediate goods	8.8	16.1	12.6	6.0	.2	1.8	1.3	−.3
Foods and feeds	14.5	8.2	16.1	−12.9	0	9.3	−5.4	−4.7
Energy	4.8	44.7	25.4	11.1	−.7	−5.5	−.1	−.8
Intermediate goods excluding food and energy	8.9	12.8	10.1	6.6	.6	3.0	2.1	−.2
Crude materials	17.2	16.4	12.8	−3.7	.4	4.7	−1.6	−5.5
Foodstuffs and feedstuffs	18.3	10.6	8.6	−14.0	1.5	8.0	−1.2	−6.4
Energy	11.1	34.9	26.9	22.8	2.6	−4.6	−1.3	−4.3
Crude nonfood materials excluding energy	21.3	15.1	7.5	−11.4	−7.6	15.5	−3.3	−4.5

[1] Calculated on a December-to-December basis; Consumer Price Index for All Urban Consumers.

[2] Producer Price Index data for December 1985 are subject to revision.

introduced a new element of competition that eventually led to sharply falling prices.

Food prices have behaved more moderately than the All Items CPI–U in every year since 1979, having a favorable cumulative effect on the overall inflation rate. Consumer prices for food rose 2.7 percent in 1985, following 4 years of similarly moderate advances. It is interesting to note that producer prices for consumer foods (up only 0.3 percent in 1985) have risen at a slower rate than prices at the retail level in each year since 1978. The persistent gap in trends between the CPI and the PPI for foods would seem to imply a rise in the share of the food dollar going for marketing, packaging, and distribution. A further salient aspect is that prices received by farmers have *declined* in most recent years. The PPI for crude foodstuffs and feedstuffs was 5.3 percent lower at the end of 1985 than it had been 6 years earlier. Reduced foreign demand for foodstuffs, partly reflecting greater production abroad, as well as the unusual strength of the U.S. dollar during most of the 1980's, contributed to already substantial domestic stocks and kept food prices in check.

While prices have slowed substantially in most sectors of the economy in recent years, charges for consumer services have not slowed nearly so much as prices for consumer commodities have. Among the various explanations offered for this trend, an important one is that prices for goods have responded to competitive pressures from the foreign sector. Between late 1980 and early 1985, the exchange value of the U.S. dollar staged a massive advance because of high real interest rates and a surge (at least since the end of the 1981–82 recession) in investor confidence. The stronger dollar made it cheaper for Americans to buy foreign goods, while prices of U.S. exports rose because of the relative fall of other nations' currencies. As a result, domestic manufacturers were often forced to hold their prices to relatively low levels to avoid losing too much of their market share to imports. Although the dollar began to decline in the spring of 1985, the price effects will take some time to materialize. Consequently, there was little perceptible influence on prices during the latter part of the year.

A clear trend observed in table 1 is the steady deceleration in consumer inflation rates for commodities other than food and energy since the peak year in 1980. Furthermore, it is apparent that inflation has virtually ceased or even reversed among intermediate and crude materials in recent years. As already noted, the strength of the U.S. dollar has made an important direct and indirect contribution to these developments. Another important factor has been the modest increase in labor compensation. The Employment Cost Index for compensation of private industry workers in goods-producing industries has slowed in each successive year since 1981, from an annual increase of 10.0 percent in 1981 to only 3.2 percent in 1985.

Although price increases for most consumer services have moderated considerably since 1981, they have generally continued to rise more rapidly than commodity prices. A variety of institutional factors have contributed to this difference. In general, service industries do not have to contend with the same type of foreign competition faced by goods-producing industries. Although price advances for tuition and other school fees have slowed somewhat in the last few years, they have shown more resistance to moderation than other items—rising 8.4 percent in 1985.

Having reviewed the general course of inflation in recent years, we will now take a closer look at producer price changes during 1985.

Finished goods

Prices received by producers of finished goods rose 1.8 percent, about the same as in 1984; however, price movements of the individual components were somewhat different. Consumer food prices rose much less than a year earlier; energy prices showed no net change after falling during 1984; and the index for finished goods other than foods and energy moved up somewhat more than in the previous year.[1]

The index for finished consumer foods inched up 0.3 percent in 1985, following a 3.5-percent rise in the preceding year. Prices for pork, beef, and veal, processed poultry, and fish fell significantly for much of the year, largely because of plentiful supplies, but turned up by year-end; only beef and veal ended the year in the minus column. Consumer demand continued to drift away from red meats toward poultry and fish. Egg prices rose nearly 7 percent in 1985, after falling the previous year when egg farmers overexpanded flocks. In contrast, shortening and cooking oils were 15 percent lower than a year earlier, as both animal- and vegetable-based products showed declines. Prices also dropped over the year for dairy products and soft drinks.

Among finished energy goods, the index for natural gas moved down 6.2 percent, after rising 1.0 percent in 1984. This decline reflected lower prices for interstate gas following the lifting of controls in January 1985 on most U.S. wellhead natural gas under the 1978 Natural Gas Policy Act. However, indexes for gasoline and home heating oil turned up after falling a year earlier. Gasoline prices were poised for sharp declines in 1985, amid strong expectations of falling crude oil prices because of disarray within OPEC and general worldwide overproduction. While gasoline prices did post a net decline for the second half of the year, this was insufficient to offset the unusually strong advances that occurred in the spring when the glut of gasoline on the market eased. After drastic declines in the first half, fuel oil prices rose sharply in the second half when inventories of heating oil were unusually low. Hoping that crude oil prices would fall, refiners sometimes preferred to buy fuel oil from other refiners instead of buying crude oil on the spot market. The resulting surge in purchases of heating oil in some areas led to higher prices.

The index for consumer goods other than foods and energy advanced 2.7 percent in 1985, after rising 2.2 percent a year earlier. Increases were widespread and generally moderate. However, passenger cars rose 4.5 percent and light motor trucks increased 8.0 percent, the largest annual advances in 3 years. Demand for cars and trucks boomed over the year, peaking at periods when low-interest financing and other incentives were in effect, then slumping when they were discontinued. Light trucks became increasingly popular as the second family car; 1985 sales of light trucks exceeded the previous record of 4.3 million sold in 1978. Domestic manufacturers sold about 8.2 million passenger cars in 1985, compared with 7.9 million in 1984.

From December 1984 to December 1985, the capital equipment index advanced 2.7 percent. Inflation for most domestically produced capital goods was restrained by continued fierce competition from imported machinery. Although capital spending rose in 1985, the rise was smaller than in other recent years. Unlike a year before when there was widespread optimism, several developments caused business to become more cautious about investment spending in 1985. For example, uncertainty over the possible cancellation of the investment tax credit increased, and speculation persisted on whether there would be a change in the period over which companies could recover their investment in machinery through depreciation allowances.

Intermediate goods

The Producer Price Index for Intermediate Goods edged down 0.3 percent from December 1984 to December 1985, following a 1.3-percent rise during 1984. Moderate declines were widespread among products within this category, while annual increases of more than 3 percent were rare.

Despite the improvement in the economy after midyear, metal markets were generally sluggish in 1985. For example, demand for domestic steel was limited. Restrictions on steel imports reduced the market share won by foreign steel producers only marginally. Some producers who were in financial straits lowered their prices to maintain or increase their market share and to generate needed cash. The continuing trend towards substitution of plastics and aluminum for steel in many major products also kept steel manufacturers from boosting output.

Prices for many nonferrous metals were considerably lower at the end of 1985 than they had been a year earlier. Tin, lead, and zinc all fell more than 20 percent. After fluctuating indecisively during most of 1985, tin prices plummeted nearly 30 percent in November and December. The financial collapse of the International Tin Council, which had been maintaining a massive buffer stock in order to support tin prices, precipitated the abrupt price drop. Lead and zinc prices fell because of a surplus in world markets that persisted despite production cutbacks in North America. (Because these two "sister metals" are generally mined together, their respective production levels are interrelated.) Aluminum prices continued to fall moderately in 1985, as demand did not improve enough to pare worldwide inventory levels sufficiently. In contrast, copper prices rose 7.5 percent, the first yearly increase since 1979. Recent increases in copper prices have been attributed in part to the falling value of the U.S. dollar. Gold prices were much less volatile than in recent times, finishing the year 2.9 percent lower than in December 1984. Silver was down more sharply (14.6 percent), partly as a result of large sales of private holdings.

Prices were weak throughout the textile industry during 1985. In recent years (particularly since 1983), competition from foreign producers has intensified in textile material markets, above and beyond the longstanding foreign penetration of apparel markets. For example, domestic production of manmade fabrics was down nearly 10 percent during the first three quarters of 1985, compared with the same period in 1984. Decreased domestic production of these textile fabrics had a direct impact on American producers of synthetic fibers, the index for which fell 4.8 percent over the year. This was the fourth consecutive annual decrease and the largest such drop on record.

The domestic electronics industry suffered an unusually sharp slump during the year because of a slowdown in personal computer sales and intensified competition from foreign (mainly Japanese) component suppliers. The PPI for electronic components and accessories edged up only 0.7 percent in 1985, the smallest rise in 10 years. Sharp price declines were particularly evident in the semiconductor industry, where prices for some advanced integrated circuits plunged more than 40 percent.

Construction material prices edged up 1.0 percent over the year. There was considerable variation in price behavior among the various kinds of construction materials. Several kinds of nonmetallic mineral products climbed moderately. Gypsum product prices turned up 8 percent, recovering from the drop that had occurred in 1984's second half. In contrast, prices for plastic plumbing products dropped nearly 12 percent, and lumber and plywood prices declined for the second consecutive year. While the residential housing construction market remained fairly good in 1985, it did not expand in response to the general drop in interest rates; this had a restraining impact on prices of lumber and other wood products heavily used in building new homes. The commercial construction market, however, had a very strong year, helping to boost prices for those materials used in erecting office buildings.

The index for intermediate energy goods moved down 0.8 percent in 1985. Residual fuel prices fell 15.6 percent, principally because of reduced world demand following the settlement of the British coal strike. Prices for jet fuels and coke also decreased. These declines were nearly balanced by increases for electric power, gasoline, and diesel fuel. The 4.7-percent fall in the index for intermediate foods and feeds was led by substantial decreases for crude vegetable

oils and animal fats and oils. Price movements for other products in this category were moderate.

Among other kinds of intermediate goods, prices for woodpulp fell more than 15 percent, as a shift from seasonal to year-round production resulted in a sizable rise in supplies. Paperboard prices declined nearly 10 percent, reflecting an overexpansion of capacity in this country and Canada. Prices for paper and paper boxes and containers moved down modestly. Prices and production levels in the pulp and paper products industry had risen steadily during 1983 and most of 1984. Moderate decreases were registered for a number of other products, such as mixed fertilizers, plastic resins and materials, synthetic rubber, and medicinal and botanical chemicals.

Crude goods

The Producer Price Index for Crude Materials for Further Processing dropped 5.5 percent, following a 1.6-percent decrease in 1984 and a 4.7-percent advance in 1983. The indexes for foodstuffs and other nonenergy materials both fell more in 1985 than in the preceding year, following increases in 1983. The crude energy price decline, which had slowed in 1984, nearly matched the 1983 rate of decrease.

After moving down 1.2 percent a year earlier, the crude foodstuffs and feedstuffs index fell 6.4 percent from December 1984 to December 1985. The index declined through the first 9 months of the year before recovering somewhat in the fourth quarter. Falling prices prevailed while livestock farmers liquidated portions of their herds in order to meet the high debt service costs incurred in connection with previous loans for expanded production. Prices then turned up at the close of 1985 as this liquidation of stocks left livestock inventories low. The decline for grain and feedstuff prices reflected continued bountiful harvests both here and in many other countries. However, inclement weather in some areas and higher export demand generally pulled fourth-quarter prices up.

The crude energy materials index moved down 4.3 percent, considerably more than the 1.3-percent decline for the previous year. The bigger decrease was principally because of a 6.2-percent drop in the natural gas index, the largest yearly decline on record. Crude petroleum prices fell for the fourth consecutive year, moving down 4.0 percent. Most of the decline occurred in the first quarter as a response to the October 1984 cut in international light crude oil prices by North Sea producers; prices were relatively stable through the rest of the year. The coal index dropped 1.4 percent, the first annual decrease since 1975. Contract coal prices, which were in many cases tied to declining indexes for fuel oil and natural gas, turned down in 1985.

The index for crude nonfood materials other than energy dropped 4.5 percent, following a 3.3-percent decline in 1984. Lower prices for ferrous scrap and iron ore were prompted by slack demand from domestic steel manufacturers. Prices for aluminum base scrap fell because of an oversupply of primary aluminum, and brass scrap dropped as it followed the downward movement of primary zinc. Leaf tobacco was down a record 11.6 percent, reflecting reduced effective price supports and large supplies. Raw cotton prices were lower as a result of burdensome stocks and weak demand from domestic fabric manufacturers confronted with intense foreign competition. The 38.5-percent fall in wastepaper prices was chiefly a reaction to the sharp drop in prices for woodpulp, which competes with wastepaper as a basic material in the manufacture of certain paper products. In contrast, cattle hide prices increased in response to good demand from foreign apparel manufacturers, coupled with low supplies in the wake of a partial liquidation of cattle herds. □

FOOTNOTE

[1] Effective with data for July 1985, the 1-month lag in indexes for major refined petroleum products was eliminated. At the same time, the sample of refined petroleum products was reweighted.

Wage restraints continue in 1985 major contracts

Wage adjustments were low for the fourth year in a row, reflecting pressures to restrain labor costs and save jobs; many contracts negotiated in 1985 featured 'back-loading,' lump-sum payments, and two-tiered systems

JOAN BORUM AND JAMES CONLEY

For the fourth consecutive year, major collective bargaining agreements in 1985 provided record low or near-record low wage adjustments, as measured by the Bureau of Labor Statistics' 18-year-old series on private industry agreements covering 1,000 workers or more.[1] Pressures to restrain labor costs dominated major negotiations during the year, and are evident in the size of settlements. First-year wage adjustments (the net effect of decisions to increase, decrease, or not change wages)[2] averaged 2.3 percent, the lowest since the series began in 1968. Wage adjustments over the life of the contracts[3] averaged 2.7 percent annually, next to the lowest. Wage adjustments actually put into effect during 1985 averaged 3.3 percent, also a historic low.

For almost all the settlements in 1985, the year marked at least the second or third round of bargaining since the average size of wage adjustments in settlements started to fall during 1981. (See chart 1.) The last time the parties to 1985 settlements bargained, usually in 1982 or 1983, they agreed to average specified wage adjustments of 3.9 percent in the first contract year and 3.7 percent annually over the contract life.

When cost-of-living adjustments (COLA) are added to the specified adjustments, predecessor contracts to the 1985 settlements upped wages an average of 4.4 percent annually over their contract life. Total wage adjustments implemented under expired contracts have declined steadily since 1983 because of moderation in the size of specified wage changes and because of lower COLA's resulting from the deceleration in the rate of price increases. As shown in the following tabulation, the predecessor contracts with COLA clauses provided smaller wage adjustments over their life than those without.

	With COLA	*Without COLA*
Total adjustment	4.2	4.7
Specified	3.0	4.7
COLA	1.3	—

Prior to 1983, expiring contracts with cost-of-living adjustment clauses provided smaller specified wage adjustments than those without, but COLA's more than made up the difference. The moderate increases in the Consumer Price Index (CPI) during the life of contracts that expired starting in 1983 kept down the size of COLA's, so that they were no longer large enough to compensate for the smaller specified adjustment in contracts with COLA's, compared to those without.

Cost-curbing efforts

In 1985, bargainers did not face inflation-related problems. The 3.8-percent increase in the Consumer Price Index for Urban Wage Earners and the 6.8-percent unemployment rate reached in December 1985 reflected improved economic conditions. However, bargainers did encounter many of the industry-specific problems faced by negotiators earlier in the decade. Increased competition from abroad and from domestic nonunion companies continued to erode

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arkets for many unionized firms, and the ensuing declines n job opportunities were a major concern of union leaders. fforts to contain labor costs and make firms more competive, and to save jobs figured prominently in negotiations. he results of some of these efforts show up in contracts that re "back-loaded," call for lump-sum payments rather than vage increases, and adopt "two-tiered" compensation systems. Other contracts simply limit the size of wage adjustments.

Back-loaded contracts. Contracts which call for lower specified wage adjustments in the first year than in subsequent years (back-loaded contracts) covered about 38 percent of the 2.2 million workers under 1985 settlements. Prior to 1983, almost all workers under multiyear settlements had their largest increases in the first year.

Back-loaded settlements provided wage adjustments averaging 0.6 percent in the first year and 2.6 percent annually over the contract life. Of the 830,000 workers covered by back-loaded contracts, 474,000 received no wage increase in the first contract year, 315,000 received smaller increases in the first than following years, and the remainder sustained initial wage cuts but no additional decreases over the life of their multiyear agreements. Although found in a variety of industries, back-loaded contracts were concentrated in apparel manufacturing, electrical machinery manufacturing, and construction.

About 36 percent of the workers under 1985 contracts were covered by "front-loaded" settlements (larger wage adjustments in the first contract year than in subsequent years), with adjustments averaging 4.2 percent in the first year and 3.3 percent over the life of the contract. The remaining 26 percent of the workers were covered by either 1-year agreements or multiyear contracts which provided equal wage adjustments each year.

Lump-sum payments. Almost one-third of the 2.2 million workers under 1985 settlements will receive lump-sum payments instead of the traditional increases in wage rates. (Lump sums are excluded from wage and compensation measures in this series.) Lump-sum payments limit labor costs because they are excluded when calculating the level of certain benefits, such as pensions, and do not raise the wage rate base from which future contracts must be negotiated.

On average, settlements with lump-sum payments gave smaller wage adjustments than those without. Adjustments averaged 1.2 percent in the first year and 1.8 percent annually over the contract life for settlements with lump sums; corresponding averages for settlements without lump sums were 2.8 and 3.2 percent. The majority of workers receiving lump-sum payments were in the apparel, electrical machinery manufacturing, and transportation industries, and more than half (363,000) of them were covered by back-loaded contracts.

Two-tiered structures. In another approach to long-term cost savings, 1985 settlements covering about 700,000 current employees provided for "two-tiered" wage systems. While not altering wages or benefits for workers already employed, two-tiered systems lower starting rates and progression rates for new hires. These dual wage structures might be temporary or permanent. Under the temporary systems, new employees start at a lower rate than incumbents, but the wage rates for new and current employees eventually merge. Under the permanent system, new employees never reach the pay levels of incumbent employees. In some cases, no cost savings may be realized from the two-tier system because no new workers may be hired during the life of the contract.

COLA clauses

Cost-of-living adjustment clauses were dropped in settlements covering 471,000 workers, or about 40 percent of those settling in 1985 who had such coverage in their previous agreements. Contracts covering about 173,000 workers in the trucking industry and 101,000 in apparel manufacturing were among those dropping COLA coverage.

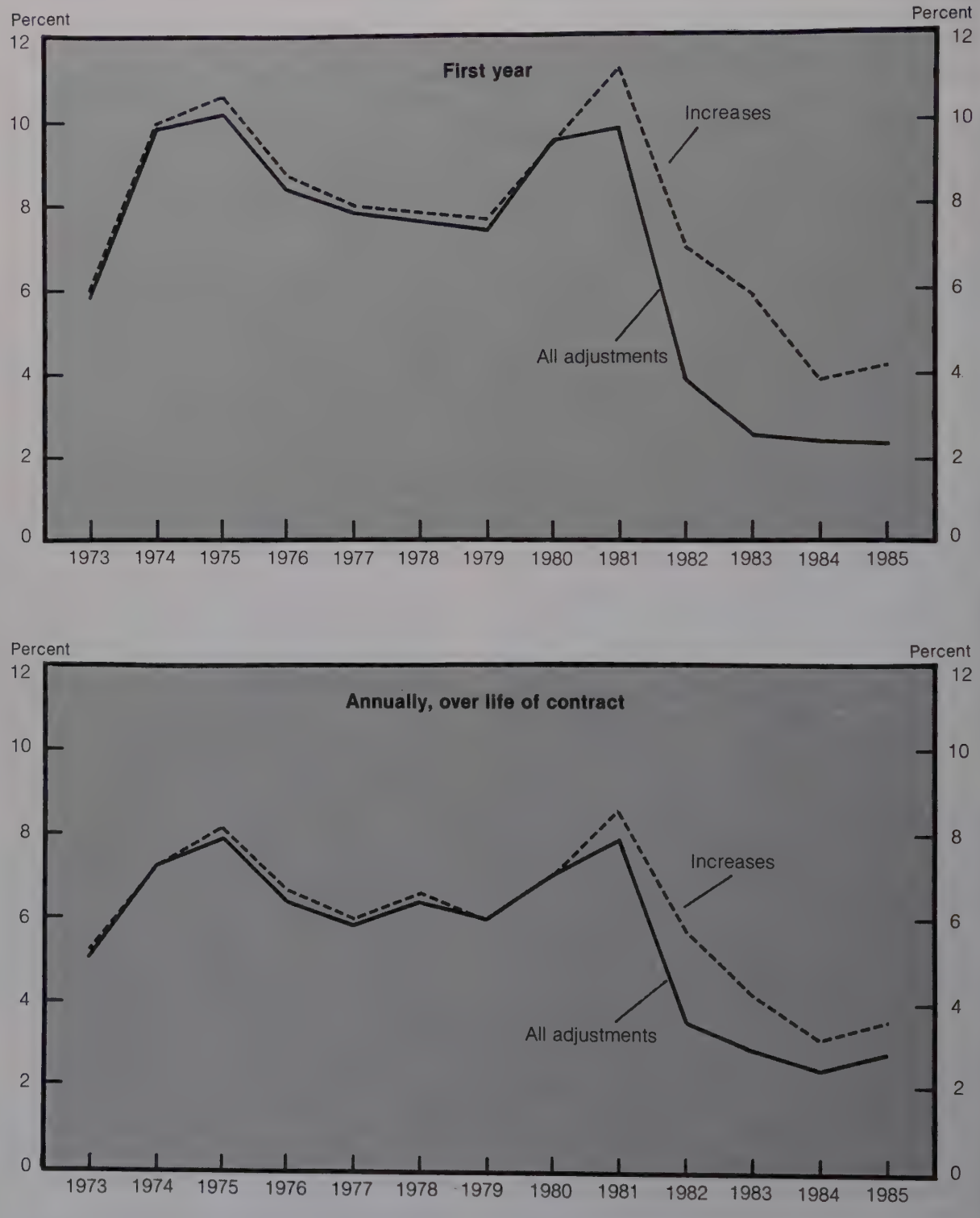
The drop reflects the declining importance of COLA's as a potential source of wage increases. Many contracts retaining COLA's modified the provision to delay or reduce payments by introducing or lowering caps or maximum amounts, or by diverting payments to cover increased benefit costs. Some contracts temporarily suspended payments.

Wage increases from COLA's during the preceding contracts were comparatively small because the CPI increased 4 percent or less annually. This led to increasing interest in negotiating specified wage changes instead of COLA clauses. In 1985, COLA clauses were introduced for only 41,000 workers. As a result of these developments and employment declines in industries with contracts that retained COLA clauses, the proportion of workers under major contracts with COLA clauses fell to 49 percent by the end of 1985, from 57 percent at the end of 1984.

Cost-of-living adjustment clauses covered 33 percent of the workers under 1985 settlements. Wage adjustments stemming from COLA clauses are not included in settlement data because COLA's depend on future changes in the CPI—changes that are not known at the time of settlement. However, guaranteed COLA amounts (those specified when the agreement is reached and scheduled to be implemented later) are included in settlement calculations because they are not tied to subsequent price movements.

Settlements with COLA clauses provided specified wage adjustments of 1.7 percent in the first contract year, and 2.5 percent annually over the contract life, compared with 2.7 and 2.8 percent in settlements without such clauses. This follows the historic pattern, in which settlements with COLA clauses have provided lower specified wage adjustments than those without, because the COLA provisions are expected to yield additional increases. (See chart 2.)

Chart 1. Average wage adjustments in private-sector settlements covering 1,000 workers or more, 1973-85



NOTE: All adjustments include increases, decreases, and no change.

istribution of wage adjustments

Of the almost 2.2 million workers under 1985 settleents, about 1.4 million had first-year wage increases averging 4.2 percent, 0.7 million had no wage change, and the alance had decreases averaging 8.8 percent. (See table 1.) ubsequent wage increases for almost half a million of the orkers with no change in the first year will give them a net ain over the contract term. Thus, by the end of their conact, 85 percent of the workers will have received a specied wage increase averaging 3.5 percent annually. None of hose with wage decreases in the first contract year will ecoup the lost wages in subsequent contract years and, hus, will have decreases averaging 6.6 percent per year ver the life of the contracts. (See table 2.)

Contracts with net wage increases were negotiated in a ariety of industries including trucking, public utilities, aparel manufacturing, airlines, service, and retail trade. Wage freezes occurred primarily in the construction indusry but appeared in other industries as well, including food tores, transportation equipment, and electrical products. About one-third of the workers who sustained wage decreases were in construction; the remainder were in a variety of industries.

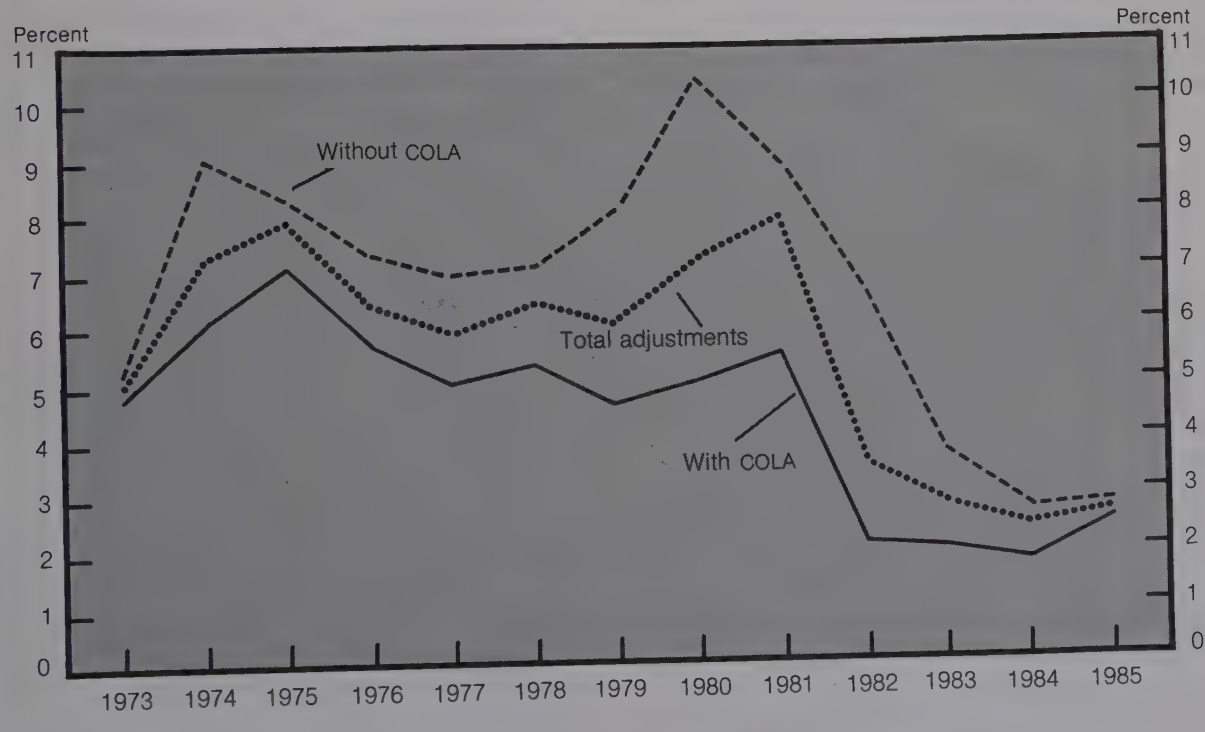
Compensation adjustments

The Bureau measures compensation (wages and employee benefits costs) changes in settlements covering at least 5,000 workers. These contracts cover about two-thirds of all workers under major settlements in 1985. Compensation adjustments under these settlements averaged 2.6 percent in the first contract year and 2.7 percent annually over the life of the contract. (See table 3.) Compensation increases were received by 9 of 10 workers under these settlements, and averaged 3.2 percent in both the first year and annually over the life of the contract. The remainder of these workers received either no change or a decrease in compensation during both the first year and over the life of the contract.

Major negotiations, by industry

Although settlements were concluded in a variety of industries in the first quarter, bargaining activity was light until spring, when the pace quickened. In some industries, talks continued from the second quarter into the third. For example, 91 percent of the construction workers under 1985 settlements had their contracts negotiated during the second and third quarters; negotiations in apparel primarily spanned May through September; and contract talks in wholesale and retail trade were also concentrated in this period. The following discussion summarizes these and other major negotiations: trucking and rubber industries in the second quarter, electrical products manufacturing in the third, and automo-

Chart 2. Average annual wage adjustments over the life of contracts with and without COLA in private-sector settlements covering 1,000 workers or more, 1973-85



bile manufacturing and railroads in the fourth.[4]

Construction. As in recent years, high unemployment and nonunion competition in construction have pressured bargainers to restrain wage demands and reduce employer costs to make union firms more competitive with their nonunion rivals. Although some contracts changed work rules, efforts to control costs concentrated on moderating wage rates: lower wage rates for new hires; lower rates for new projects than for work already in progress; and delaying wage increases to the second or third year of the contract. Thirty-one percent of the construction workers covered by 1985 agreements will have wage cuts or freezes over the life of their agreements.

These efforts to contain or reduce construction labor costs dampened the overall size of wage adjustments for all industries. Construction settlements, which covered 330,000 workers, provided average wage adjustments of 1.5 percent in the first year and 2.1 percent annually over the life of the agreements, compared with corresponding averages of 2.5 percent and 2.9 percent in other industries.

Wholesale and retail trade. With negotiations concentrated in the second and third quarters, settlements covering 234,000 workers in wholesale and retail trade were concluded in 1985. These contracts provided average adjustments of 2.8 percent the first year and 2.6 percent annually over the life of the agreements. Almost one-third of the workers under these contracts will receive lump-sum payments. Efforts to restrain labor costs and improve the competitive position of the firms have also led to the expansion of the already widespread use of part-time employees. This practice lowers costs, by reducing the need for overtime work and because part-timers may be paid less than full-timers and be eligible for fewer benefits.

Trucking. Beset with problems generated by deregulation and the recession in the early 1980's, Trucking Management Inc. (TMI), the major employer negotiator in the trucking industry, sustained a sharp drop in the number of member companies for which it bargains. Since the 1982 negotiation of the prior agreement, many companies merged, failed, or laid off workers resulting in a smaller number of firms and workers in the industry. The expired contract between TMI and the Teamsters provided no specified wage increase, and only one COLA increase on the effective date of the contract. All other COLA monies had been diverted to pay for increases in the cost of benefits. The May settlement covering 150,000 truckers and helpers, substituted the COLA clause based on changes in the CPI for a "guaranteed COLA" (an amount specified in the contract independent of the CPI). The contract also called for changes in work rules, in an attempt to make unionized firms more competitive.

Rubber. Closely linked to automobile manufacturing, which is still struggling with foreign competition, the rubber tire manufacturers had revitalized many of their plants since the prior round of talks. Negotiations were held under a backdrop of higher capacity utilization and fewer layoffs than in the early 1980's.

The 3-year agreement between the United Rubber Workers and B. F. Goodrich set the pattern for settlements with the three other major rubber manufacturers: Goodyear, Firestone Tire and Rubber Co., and Uniroyal. These contracts, covering 36,000 workers, raised wages 43 cents an hour over 3 years and maintained the quarterly cost-of-living clause providing a penny for every 0.26-point rise in the CPI–W.

Apparel. Over the past several years, the apparel industry has been plagued with high unemployment as the industry faces stiff competition from foreign imports. Contracts covering 285,000 workers represented by the International

Table 1. Wage adjustments for settlements, covering 1,000 workers or more in private industry, 1985

Measure	First year		Over life of contract	
	Average adjustment (percent)	Workers (thousands)	Average annual adjustment (percent)	Workers (thousands)
All settlements				
All industries	2.3	2,193	2.7	2,193
With COLA clauses	1.6	673	2.5	673
Without COLA clauses	2.7	1,520	2.8	1,520
Manufacturing	.8	865	1.8	865
With COLA clauses	.8	473	2.1	473
Without COLA clauses	.9	391	1.6	391
Nonmanufacturing	3.3	1,329	3.3	1,329
With COLA clauses	3.6	200	3.6	200
Without COLA clauses	3.3	1,129	3.3	1,129
Construction	1.5	329	2.1	329
All industries, excluding construction	2.5	1,864	2.9	1,864
Nonmanufacturing, excluding construction	3.9	999	3.7	999
Settlements providing increases				
All industries	4.2	1,391	3.5	1,865
With COLA clauses	3.0	411	2.8	627
Without COLA clauses	4.6	980	3.8	1,239
Manufacturing	2.6	374	2.4	713
With COLA clauses	1.8	251	2.3	434
Without COLA clauses	4.3	123	2.6	279
Nonmanufacturing	4.7	1,017	4.1	1,153
With COLA clauses	4.9	159	3.9	193
Without COLA clauses	4.7	858	4.2	960
Construction	3.6	202	3.6	226
All industries, excluding construction	4.2	1,189	3.5	1,639
Nonmanufacturing, excluding construction	5.0	815	4.3	926
Settlements providing decreases				
All industries	−8.8	73	−6.6	73
With COLA clauses	−7.4	18	−2.9	18
Without COLA clauses	−9.3	55	−7.8	55
Manufacturing	−8.5	29	−4.4	29
Nonmanufacturing	−9.0	43	−8.1	43
Construction	−10.1	23	−5.4	23
All industries, excluding construction	−8.2	49	−7.2	49
Nonmanufacturing, excluding construction	−7.8	20	−11.3	20

Table 2. Proportion of workers with increases, decreases, or no wage change under settlements covering 1,000 workers or more in private industry, 1979–85

[In percent]

Year	First year			Over the life of contract		
	Increases	No change	Decreases	Increases	No change	Decreases
1979	96	4	0	100	0	0
1980	100	0	0	100	0	0
1981	92	3	5	94	1	5
1982	56	42	2	64	35	1
1983	63	22	15	73	14	13
1984	77	18	5	84	12	4
1985	63	33	3	85	12	3

Ladies' Garment Workers Union (ILGWU) and the Amalgamated Clothing and Textile Workers Union (ACTWU) were reached between May and October and featured some cost-saving features.

The agreements covering 125,000 workers negotiated by the ILGWU and various employer groups were back-loaded. Wages were frozen the first year. However, increases of 6 percent and 5 percent, respectively, are scheduled for the second and third years. The COLA clause, which had not generated any increases under the last two contracts, was unchanged; it provides for a 2-percent wage increase if the CPI–W rises 8.5 percent in an 18-month period. The contract also improved some health and welfare benefits.

The September agreement between the Cotton Garment Manufacturers and the National Trouser Association covering 101,000 workers represented by the ACTWU dropped their COLA clause which had not yielded any payment since 1981. The accord also provided a $500 lump-sum payment upon settlement and lump-sum payments of 6.5 percent of gross pay in 1986 and in 1987. A general 25-cent wage increase is scheduled for September 1987. Benefit increases include an 11th paid holiday—Martin Luther King's birthday—and increases in pension, sickness and accident, and death benefits.

Electrical products. Declining employment in the industry raised concern over job preservation in the contract talks in the electrical products manufacturing industry. The resulting settlements, covering 106,000 General Electric and Westinghouse workers negotiated by the Coordinated Bargaining Committee (a coalition of 13 unions) introduced lump-sum payments and a temporary two-tiered wage structure. As usual, the settlement with General Electric (for 80,000 workers) set the pattern for the Westinghouse accord. It provided for a lump-sum payment in the first year equal to 3 percent of the pay rate times 2,080 hours, and general wage increases of 3 percent in the second and third years. In addition, new employees will have to wait 8 months longer to reach the maximum pay rates for their job. The cost-of-living clause was continued providing 1 cent for each 0.175-percent change in the CPI–W, increasing to 1 cent for each 0.15-percent change in the third year.

Automobile manufacturing. In late October, an agreement covering 70,000 workers was reached between the Auto Workers and Chrysler Corp. providing parity with wage and benefit provisions in the General Motors Corp. and Ford Motor Co. contracts. The financial position of Chrysler had improved substantially since the United Auto Workers cost-curbing contracts negotiated in 1979, 1980, and 1981. The December 1982 contract had reduced the disparity between Chrysler's wages and benefits and those at Ford and General Motors, but differences remained. The 1985 Chrysler settlement eliminated these differences; it provided for a 2.25-percent wage increase in the first year; an October 1986 lump-sum payment equal to 2.25 percent of each employee's earnings during the preceding 12 months; and a 3-percent pay increase in October 1987. The cost-of-living clause was modified to match that covering GM and Ford workers—a 1-cent wage change for each 0.26-point movement in CPI–W quarterly, subject to a 1- to 2-cent diversion from each adjustment to help offset increased benefit costs.

Railroads. After negotiating for 2½ years, the United Transportation Union and the National Railway Labor Conference reached a settlement in December covering 82,000 operating engineers. The agreement followed the recommendations of a presidentially appointed emergency board. It provided that the 6,000 firemen and 2,000 hostlers (rail-yard train operators) would be phased out through attrition. Other terms were a six-stage wage increase totaling about 10.5 percent over the term of the agreement (an average of about $1.37 an hour); a $565 lump-sum payment in lieu of making the initial wage increase retroactive to July 1984; and a modified COLA clause which provides that COLA's are

Table 3. Average compensation (wage and benefit costs) adjustments in settlements covering 5,000 workers or more in private industry, 1985

[In percent]

Industry	First-year adjustments	Annual adjustment over life of contracts	Number of workers (thousands)[1]
All industries	2.6	2.7	1,413
Contracts with COLA clauses	2.0	2.5	520
Contracts without COLA clauses	3.0	2.9	894
Manufacturing	1.2	1.9	603
Contracts with COLA clauses	1.4	2.3	341
Contracts without COLA clauses	.9	1.4	262
Nonmanufacturing	3.7	3.4	811
Contracts with COLA clauses	2.9	2.8	179
Contracts without COLA clauses	3.9	3.5	632
Construction[2]	2.6	3.0	108
All industries, excluding construction[2]	2.6	2.7	1,306
Nonmanufacturing, excluding construction[2]	3.8	3.4	703

[1] Because of rounding, sums of individual employment items may not equal totals.

[2] Data by COLA coverage do not meet publication standards.

Table 4. Effective wage adjustments in collective bargaining agreements covering 1,000 workers or more, 1979–85

Year	Total adjustment	Source		
		New agreements	Deferred from prior agreements	COLA
1979	9.1	3.0	3.0	3.1
1980	9.9	3.6	3.5	2.8
1981	9.5	2.5	3.8	3.2
1982	6.8	1.7	3.6	1.4
1983	4.0	.8	2.5	.6
1984	3.7	.8	2.0	.9
1985	3.3	.7	1.8	.7

to be paid only to the extent that they exceed the specified wage increases.

Wage adjustments effective in 1985

Wage adjustments put into effect in 1985 resulted from settlements during the year; deferred changes made under agreements negotiated in earlier years; and cost-of-living provisions.[5] Each of these components was at or near its lowest level for this series. (See table 4.) Combined, they resulted in an average effective wage adjustment of 3.3 percent for the 7 million workers under major contracts, the lowest adjustment since the series began in 1968. About 1.4 million workers received no wage adjustments; the remaining 5.6 million received adjustments which averaged 4.1 percent.

The following tabulation shows average wage adjustments (in percent) effective in 1985 for workers receiving one or more wage changes and prorated for all workers:

	Workers receiving wage changes	*All workers*
All adjustments	4.1	3.3
New settlements	3.4	.7
Deferred from prior settlements	3.7	1.8
COLA	2.2	.7

Workers can receive wage changes from more than one source; thus the size of the average change for workers receiving changes (4.1 percent) is larger than any of its parts.

The prorated cost-of-living adjustment averaged 0.7 percent in 1985, up slightly from the 1983 low of 0.6 percent. The size of adjustments is determined by movement in the CPI, frequency of reviews, and the adjustment formula used. Thus, the size of the COLA component is affected by the decline in COLA coverage, the moderate inflation rate, and the negotiation of less generous formulas.

About 2.8 million workers had cost-of-living reviews in 1985; 2.3 million received increases averaging 2.2 percent; approximately 400,000 had at least one review that yielded no wage change; and none had decreases resulting from COLA's. Wage adjustments stemming from 1985 reviews offset about 58 percent of the rise in consumer prices, compared with 50 percent in 1984.

Effective wage changes in major collective bargaining agreements are reflected in the Bureau's Employment Cost Index (ECI), which measures the change in the price of labor, free from the influence of employment shifts among industries and occupations. The wage and salary series of the ECI is limited to straight-time average hourly earnings, including production bonuses, incentive earnings, and COLA's, and excluding employer costs for employee benefits. The ECI wage and salary component is conceptually similar to the effective wage adjustment measure for union workers covered by the major collective bargaining agreements series, but provides data on *both* union and nonunion workers.

The ECI wage and salary component shows that in private industry, the cost of wages and salaries rose 4.1 percent from December 1984 to December 1985, matching the lowest 12-month change recorded in the 9 years such data are available. Continuing the relationship that began in 1983, wages increased less for union (3.1 percent) than for nonunion (4.6 percent) workers during the year ended December 1985.

THERE IS LITTLE ON THE HORIZON to suggest that 1986 bargaining results will be very different from those in 1985. For a discussion of the outlook for bargaining in 1986, see "Collective bargaining during 1986: pressures to curb costs remain," in the January 1986 *Review*. □

FOOTNOTES

[1] The major collective bargaining agreement series for private industry covers 7 million workers in bargaining units with at least 1,000 workers. For definitions of terms, see Current Labor Statistics, Wage and Compensation Data, p. 65. Additional tabulations from this series appear in the April 1986 issue of the Bureau's *Current Wage Developments*.

[2] Adjustments under settlements reached in the period and effective within 12 months of the contract effective date.

[3] Adjustments under settlements reached in the period expressed as an average annual (compound) rate over life of contract.

[4] For details of these settlements, see George Ruben, "Labor and management continue to combat mutual problems in 1985," *Monthly Labor Review*, January 1986, pp. 3–15.

[5] To calculate the effective adjustment and each component for workers receiving wage changes, each percent change in wages is weighted by the number of workers receiving the change, then the total worker-weighted change is divided by the number of workers receiving the changes. The prorated adjustment is calculated by dividing the total worker-weighted change by the total number of workers covered by major agreements. Therefore, the size of the average adjustment and each of its components reflects both the size of each change and the number of workers it affects.

The business services industry sets pace in employment growth

Industries which provide services to businesses for a fee or on a contractual basis have had rapid gains in employment growth over the last decade, especially firms supplying computer and data processing services and temporary help; expansion is expected to continue

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Just as businesses purchase raw materials, machinery, or office equipment from suppliers, they also purchase services. These services may be highly technical, such as the development and sale of specialized computer software programs, or they can be more mundane, such as building cleaning and maintenance. Also, the need may be year round, such as for payroll processing, or temporary, such as for a fill-in receptionist. In any case, the use of contractors to supply certain types of services gives an employer considerable flexibility, and often is less expensive than hiring permanent employees to provide the same services. Business services is the fastest growing industry in the economy, and, while still small in the aggregate, may be representative of changes in the way many American companies are doing business.

The business services industry is made up of seven major industries:[1] advertising; consumer credit reporting and collection; mailing, reproduction, and stenographic services; services to buildings, including cleaning, maintenance, and exterminating services; personnel supply services, which includes both temporary help supply companies and employment agencies; computer and data processing services; and miscellaneous business services, which offer research and development, management and consulting, and protective services. These industries supply a variety of services to business establishments on a fee or contract basis. The heterogeneous mix of individual industries is also reflected in the diverse occupational distribution of employment in business services, which includes highly skilled managerial and administrative occupations, as well as lower skilled service occupations.

With employment doubling, the rate of job growth in business services over the past decade was more than four times that for all private nonagricultural industries. The growth of individual industries varied widely: employment in computer and data processing services and personnel supply services more than tripled, while moderate growth occurred in advertising; mailing, reproduction, and stenographic services; and services to buildings (although each of these industries grew much faster than the economy as a whole). Credit reporting and collection was the only business services industry that failed to increase its work force.

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This article examines the rapid growth in the business services industry, particularly the computer and data processing and personnel supply services industries. It discusses the type of services offered by business services industries, the extent and nature of the employment expansion, and the occupations and earnings of the work force.

The data are from the Current Employment Statistics (CES) survey, the Current Population Survey (CPS) and the Occupational Employment Statistics (OES) survey.[2] The CES survey is generally recognized as the major source of current information on employment by industry. CES statistics are derived from a sample survey of business establishments, designed to provide industry information on nonagricultural wage and salary employment, average weekly hours, average hourly earnings, and average weekly earnings. Data derived from this survey are used whenever possible. However, the CES survey provides no demographic information except gender, and no occupational information at all. The CPS is used to provide information on job tenure and self-employment. Occupational distributions of employment are available from both the OES survey and the CPS. For this article, detailed OES employment data were aggregated into the major occupational groupings used in the CPS, which were used for economy-wide comparisons.[3]

Computer and data processing services

The greatest employment growth in business services between 1974 and 1984 took place in computer and data processing services, which grew by more than 250 percent. While the rate of employment gain in computer and data processing services throughout the economic downturns was much less than during expansionary periods, job gains continued even during the downturns. (See table 1.) This illustrates the relative insensitivity of this industry to changes in the business cycle. Computer and data processing services comprises two main components—data processing and programming services. Growth in data processing services depends on businesses using outside firms for data processing, whereas computer programming and other software services depends on businesses using their own systems.

Enterprises in data processing services provide such services as data entry, processing and preparation of reports from data supplied by clients, leasing or renting of computer time, and management and operation of the computer and data processing facilities of firms. Some data processing services organizations operate computer centers at which they process data on a periodic basis for firms that supply their own computer programs, and simply purchase computer power. Data are submitted by some of these customers via remote-batch terminals, and output is received on the same terminals. Other customers are time-sharing users who use their own computer terminals to solve relatively small business problems, utilizing the power supplied by the service organizations' mainframe computer.[4]

Many customers submit standard jobs for routine processing using computer programs supplied by the data processing service organization. In most cases, these firms are too big to perform their data processing manually, but it would not be cost effective for them to purchase or lease computer systems and hire operating staff. The requested services generally include payroll, accounts payable, and accounts receivable—the oldest types of services provided by data processing service organizations—and usually involve updating customers' private files in the course of processing input data and preparing output reports. The inception of on-line computer services has permitted access to public files (for example, airline, sporting, and theatrical reservation files, stock market transaction files, and U.S. census data) via software provided by the service organizations.[5]

During the late 1970's, design and production advances resulted in faster, cheaper, and more reliable computers. Less costly hardware has made it possible for many companies to purchase their own computers. As software became more user-friendly and hardware easier to use, the need for firms to contract for computer services diminished. Moreover, because traditional data processing activities such as accounting and financial analysis are now easily available using small computers and standard software packages, even companies that continue to contract for data processing services no longer seek such services to the same degree.[6] Evidence of this trend is the 16-percent employment growth in data processing services between 1982 and 1984, a relatively small growth compared with that in computer programming services (46 percent) during that period.

While many of the data processing service organizations that sell traditional time-sharing services have suffered a slowdown in growth, some have begun to offer specialized business services based on their own proprietary software. Companies that offer services to particular market niches such as hospitals and brokerage firms are experiencing rapid growth.[7] Moderate employment growth should continue in data processing services, along with greater overall acceptance of computer technology in the marketplace and continued innovations in data communications. As was the case in the past few years, growth should be tempered as

Table 1. Average annual rates of employment change in private nonagricultural and selected business services industries during business cycles

Business cycles[1]	All private nonagricultural industries	Personnel supply services	Computer and data processing services
Recessionary periods:			
November 1973–March 1975	−5.7	−13.3	11.0
January 1980–July 1980	.5	−1.8	4.4
July 1981–November 1982	−3.4	−8.7	28.5
Recovery periods:			
March 1975–January 1980	20.8	133.7	108.7
July 1980–July 1981	2.8	16.5	10.8
November 1982–June 1985	11.9	71.5	44.2

[1]Recessionary and recovery periods as designated by the National Bureau of Economic Research.

omputer hardware and software become more affordable, esulting in a larger proportion of firms which maintain their wn computer systems.

The other major component of computer and data processing services is the computer programming and other software services industry. Included in this industry are firms which provide analysis and design for computer systems, development of computer programs or systems, computer programming services, and computer-related systems engineering. While only a third of the 475,000 workers in the computer and data processing services industry were employed in computer programming services in 1984, much of the long-run potential for substantial employment growth lies in this industry.

Unlike data processing service organizations, computer programming services firms have benefited from the introduction of mini- and micro-computers. Employment in computer programming services grew 46 percent between 1982 and 1984. As computer hardware dropped in price and performance improved, new applications for computers became feasible. The potential for more powerful, user-friendly computer software that can provide services such as financial statement preparation, profit analysis, and analytical management reports should increase the already strong demand for software services. Software is currently being written that appeals to both a broad group of users as well as a highly specialized market. The more computers and their applications proliferate, the greater will be the need for computer programming services.[8]

Within computer and data processing services, a disproportionate number of workers hold professional and technical jobs. There are almost twice as many professional specialty workers (such as computer systems analysts and electrical and electronic engineers) in this industry, compared with other business services industries. (See table 2.) The number of technicians (such as computer programmers) is almost three times the proportion found within all business services and seven times the average proportion for all industries. Because of the fast-moving technologies in this high tech industry, there is a great demand for technicians and programmers who are familiar with the latest computer technology.

Personnel supply services

The second fastest employment growth within business services between 1974 and 1984, at 211 percent, was achieved by personnel supply services. During the first half of this period, the average annual rate of growth was about 20 percent. This rate dropped off between 1979 and 1981, and employment actually declined during the 1981–82 recession. Between 1982 and 1984, however, employment grew 50 percent. Personnel supply services has a much larger ratio of administrative support workers, compared with other business services industries, and, at 42 percent in 1984, had more than twice the share of clerical employment than the average for all industries. Personnel supply services comprise two components, temporary help supply services, which accounts for three-fourths of the industry employment, and employment agencies.

Temporary help supply services consists of businesses primarily engaged in supplying temporary help to other establishments on a contractual basis. (See accompanying article.) The employees remain on the payroll of the temporary help supply agencies, but are placed under the direct or general supervision of the firm to which they are supplied. Unfortunately, the CES survey cannot determine the industries in which temporary employees actually work because they appear on the payrolls of the individual temporary help supply agencies. Therefore, employment growth in the user industries is understated.

Overall, there was a 57-percent employment increase in temporary help supply services between 1982 and 1984, the largest growth of any industry in the economy over the 2-year period. To some degree, the employment boom since 1982 in temporary help supply services can be attributed to the post-recession economic recovery. Table 1 shows employment growth in personnel supply services, both during

Table 2. Occupational distribution of nonagricultural employees in the business services industry, 1984

[In percent]

Occupation	All nonagricultural employees[1]	Business services							
		Total[2]	Advertising	Credit reporting and collection	Mailing, reproduction, and stenographic	Services to buildings	Personnel supply	Computer and data processing	Miscellaneous business services
Managerial and administrative	11.3	10.2	21.5	10.0	7.3	2.6	7.3	12.8	12.6
Professional speciality	13.0	8.5	20.7	.8	14.7	[3]	5.7	16.4	9.1
Technicians and related support	3.1	7.3	3.5	1.6	2.3	.1	8.7	21.4	6.4
Salesworkers	12.4	5.3	15.4	7.8	6.2	1.8	1.8	7.3	6.5
Administrative support—including clerical	16.4	28.2	31.0	78.2	43.4	4.3	41.5	36.8	24.0
Services, except private households	13.9	26.3	.4	.9	.7	88.3	9.9	.5	25.6
Precision production, craft, and repair; operators, fabricators, and laborers	30.0	14.2	7.5	.7	25.4	2.9	25.2	4.9	15.8

1 Data are from the Current Population Survey, annual averages.

2 Data are from the Occupational Employment Statistics survey, June 1984.

3 Less than 0.1 percent.

and after the last three recessionary periods. During post-recessionary periods, employment growth in personnel supply services was much stronger than in all private nonagricultural industries. Such strong employment growth indicates that although some of the increase is due to a change in how firms handle business office functions, much is due to real growth.

Many businesses exercise caution as they emerge out of a recession, choosing to hire temporary employees rather than risking a long-term investment in permanent hires. The temporary help industry provides customers with trained personnel, and the customers pay the temporary help supply agencies an hourly rate above that paid to the temporary workers. Companies which use these agencies to meet their short-term needs can test the market to see if job expansion is prudent.[9] If unfavorable market conditions call for a reduction in labor costs, it is easier and less costly to cancel the contract for temporary help. Also, if managers are unsatisfied with the performance of a temporary worker, they can simply request a replacement. If favorable market conditions warrant the hiring of permanent employees, the firms may offer temporary workers a permanent position, with the added advantage that those employees are already familiar with their business techniques. However, contracts between temporary help supply agencies and their customers may limit this practice.

The use of nonpayroll employees allows the latter to avoid many of the costs associated with employment, such as payroll processing, as well as those of health and unemployment insurance, workers' compensation, sick and vacation leave, and pensions.

Temporary help workers perform a variety of jobs. They can be service workers earning the minimum wage or highly paid technicians or administrators. The largest number of temporary workers are employed as general office clerks, secretaries, and typists. There is a particularly large number of typists experienced with word processing equipment in this industry. To get the most from already purchased office equipment, companies are now competing for typists trained in word processing skills. Given the rate at which word processing systems are being installed, the demand for these workers is likely to continue into the near future.

Other prominent temporary supply services occupations are related to the rapidly expanding health care industry. There are sizable numbers of registered and licensed practical nurses, as well as other health care professionals and technicians, employed as temporary help workers. Employment opportunities for these health care specialists is due, in large part, to the considerable expansion in medicare and medicaid insurance coverage for home health care in the last decade.[10] To cut health care costs, health insurance coverage now often includes the cost of skilled home health care nurses, therapists, and technicians. Most home care agencies are small, independently owned businesses, but, because of fierce competition and economies of scale, large national companies have increased their share in the market over the decade.[11] Both large and small home health care organizations supply health service workers to customers on a contractual basis.

Most employees stay with a temporary supply service for only a short time, although some stay for years. Just as businesses use temporary help to test the market, temporary workers can shop for a permanent position in a recovering economy, sampling a range of work environments until they find the right employment situation, while gaining self-confidence and job experience. Workers not actively seeking permanent positions may be attracted to the competitive wages and the flexible hours provided by temporary employment, especially workers with family or other personal responsibilities.[12]

The increasing number of business establishments that are computerizing their operations has created a demand for workers with computer-related skills over the decade. Temporary help supply agencies recruit and train workers for staff positions that this new office technology creates.[13] As noted earlier, the largest number of workers on the payroll of such agencies are secretaries with word processing skills. In addition, the agencies lease systems analysts and other professional and technical specialists to companies on a per-project basis. The number of these professionals is still very small, however, as most of such work is handled by the computer and data processing industry. Strong demand for temporary workers who are familiar with computer technology should continue along with the growth in computer applications.

Employment agencies, the other component of personnel supply services, consists of firms that assist employers looking for staff or individuals seeking employment. This industry includes placement services, labor contractors, and maid, model, nursing, and teacher registries. Unlike temporary help supply services firms, they do not employ workers for contracting out to establishments, but match job applicants and job openings for a fee, which is paid by either the employer or by the job applicant. Employment agencies are cost-effective sources for locating experienced and skilled personnel. Many agencies promote specialized occupations, such as data processing, clerical, technical, managerial, executive, or engineering. Nevertheless, the staffs of these agencies are concerned with placement-related activities or support, so their occupational range is limited. The most prominent managerial occupation in this industry is employment interviewers who interview, select, and recommend applicants for job openings. Much of the growth potential in this occupation, where women make up the majority of employees, should occur as employers try to provide effective employee relations for an expanding and aging work force.[14] Overall, employment in this component of the industry increased 30 percent between 1982 and 1984, as economic recovery led to increased hiring.

Other business services

Mailing, reproduction, and stenographic services also had strong employment growth (89 percent) between 1974 and 1984. Firms engaged in direct mail advertising, compiling and selling mailing lists, and providing typing services are included in this industry. Word-processing services are also offered by these establishments to both individuals and firms that do not own or operate their own computer system. Future employment growth will probably not be as strong as in the past 10 years, as microcomputer cost declines and packaged computer programs make it easier for firms and individuals to own and operate their own computer systems, displacing some of the services provided by this industry.

Services to buildings industry includes establishments which offer cleaning, disinfecting, and exterminating services to business establishments and homeowners. Employment in this industry grew 55 percent over the 1974–84 period. Employment among janitors and cleaners—the industry's major occupational group—has increased over the decade. Because pay is relatively low and advancement limited, job turnover is high, creating many of the openings for these workers. Job gains over the next decade are projected to grow more rapidly than other services industries, partly due to planned growth in the number of office buildings, apartment houses, and private dwellings.[15]

Advertising industry's employment increased 48 percent between 1974 and 1984. Employment opportunities were particularly strong for sales agents, advertising and public relations managers, and artists. Overall, job growth in advertising during the last decade was below that of other business services industries, but was still more than twice as large as the average growth in all industries throughout the economy.

Miscellaneous business services is the largest segment of the business services industry, accounting for more than 40 percent of all employment. Included in this industry are such diverse components as management, consulting, and public relations services; protective services; and research

Table 3. Ten most prominent occupations in the seven business services industries, June 1984

Industry and occupations	Percent of industry employment
Advertising:	
Sales agents, advertising	10.4
Marketing, advertising, and public relations managers	9.8
Secretaries	9.5
Artists	8.0
Writers and editors	4.4
Designers	4.4
Bookkeeping, accounting, and auditing clerks	3.6
General office clerks	3.3
Nonspecified professional and technical occupations	3.1
Purchasing agents—except wholesale, retail, and farm products	3.0
Credit reporting and collection:	
Bill and account collectors	25.1
General office clerks	8.7
Credit checkers	8.1
Clerical supervisors	5.9
Sales agents, business services	4.6
Secretaries	4.1
Data entry keyers	3.9
Typists	3.8
Bookkeeping, accounting, and auditing clerks	2.8
Financial managers	2.6
Mailing, reproduction, and stenographic:	
Mail machine operators	7.5
Artists	6.1
Photographers	4.1
Mail clerks	3.6
Designers	3.1
Printing press machine operators	3.1
Duplicating machine operators	3.1
Clerical supervisors	3.0
Nonspecified helpers, laborers, and material movers	3.0
Secretaries	2.9
Services to buildings:	
Janitors and cleaners	67.8
Maids and housekeeping cleaners	6.4
Pest control and assistants	6.2
Housekeepers	2.3
Nonspecified cleaning and building service workers	2.0
Continued—Services to buildings:	
Nonspecified service supervisors	1.5
Secretaries	1.3
Sales agents, business services	1.3
General office clerks	1.2
Maintenance repairers	1.0
Personnel supply:	
Nonspecified helpers, laborers, and material movers	8.2
General office clerks	8.1
Secretaries	6.7
Typists	5.2
Registered nurses	4.3
Employment interviewers	4.3
Nonspecified service workers	4.2
Freight, stock, and material movers	4.2
Nonspecified health professionals	3.8
Typists, word processing equipment	3.5
Computer and data processing:	
Computer programmers	16.5
Systems analysts—electronic data processing	10.0
Data entry keyers	9.2
Computer operators	5.2
Secretaries	4.2
General managers and top executives	3.3
Electrical and electronic engineers	2.9
General office clerks	2.9
Sales agents, business services	2.8
Clerical supervisors	2.5
Miscellaneous business services:	
Guards and watch guards	21.6
General managers and top executives	4.3
Secretaries	3.6
Switchboard operators	2.4
General office clerks	2.3
Interviewing clerks	2.2
Nonspecified helpers, laborers, and material movers	1.8
Bookkeeping, accounting, and auditing clerks	1.8
Clerical supervisors	1.7
Nonspecified managers and administrators	1.6

NOTE: Data are from the Occupational Employment Statistics survey, June 1984.

and development laboratories, that provide employment for a wide range of occupations. Betweeen 1980 and 1984, employment grew by 25 percent in miscellaneous business services,[16] and the growth rate is expected to continue to lag behind the rest of business services.

Credit reporting and collection was the only business services industry that failed to register job gains between 1974 and 1984. About 8 of 10 employees in this component of the business services industry are clerical workers. (See table 3.) The increase in office automation systems over the decade made it easier for the firms themselves to acquire information formerly provided by this segment, and may have resulted in the elimination of many administrative support jobs related to accounts reporting and collection.[17]

Characteristics of employment growth

Overall, women accounted for 46 percent of the business services work force in 1984, up from 39 percent in 1974, as their job growth outpaced gains for men. (See table 4.) Only two business services industries did not increase their share of women during that period—credit reporting and collection and computer and data processing services. The decrease in the share of employment for women in computer and data processing services was primarily due to that industry's increased emphasis on high tech occupations, which are dominated by men.

Women make up the majority of workers in credit reporting and collection, advertising, and personnel supply services. More than 60 percent of the personnel supply services work force are women, reflecting this industry's greater employment of administrative support personnel and nurses, occupations dominated by women. Within personnel supply services, there are more women than men in both employment agencies and temporary help supply agencies; however, since 1982, job gains for men have been stronger in both industries. In fact, growth for men in employment agencies was almost four times that for women. The future structure of business services may be determined by the relative employment gains of the two large growth industries—computer and data processing, where employment is dominated by men, and personnel supply services, where employment is dominated by women.

Self-employed workers constitute a rapidly growing segment of the business services industry. Over the 1974–84 period, self-employment more than tripled—from 190,000 to 575,000; women accounted for most of the growth. To the extent that female employment is growing more rapidly than male employment in the business services industry, the increase in self-employed women could be expected. Nevertheless, the growth in self-employed women over the decade may also indicate an expansion in the employment opportunities that women are creating for themselves.[18]

Weekly earnings

Historically, the weekly earnings of workers in the business services industry have been somewhat lower than the average for all industries.[19] Between 1974 and 1984, however, the 105-percent increase in average weekly earnings in business services outpaced the 90-percent average gain for all industries. In 1984, business services employees averaged $266.45 a week, compared with $294.05 for all private nonagricultural industries and $250.59 for the services division of the service-producing sector of the economy.

The earnings in business services reflect, among other factors, the occupational mix, which, despite a large representation of managers and administrators, also has a large concentration of low wage service and clerical workers.[20]

Table 4. Percent distribution of production or nonsupervisory employees in the business services industry, 1974 and 1984 annual averages

Year and sex	Total[1]	Advertising	Credit reporting and collection	Mailing, reproduction, and stenographic	Services to buildings	Personnel supply	Computer and data processing
1974							
Total (in thousands)	2,027.4	123.8	79.6	87.6	393.8	266.2	134.6
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Men	61.1	58.2	24.6	54.7	67.3	46.2	51.6
Women	38.9	41.8	75.4	45.3	32.7	53.8	48.4
1984							
Total (in thousands)	4,075.6	183.3	80.0	165.5	608.9	828.0	473.7
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Men	54.3	48.5	28.9	50.8	61.8	38.0	55.2
Women	45.7	51.5	71.1	49.2	38.2	62.0	44.8
1974–84							
Percent change:							
Total	101.0	48.1	.5	88.9	54.6	211.0	251.9
Men	78.6	23.2	17.9	75.4	42.0	155.8	276.5
Women	136.3	82.8	−5.2	105.3	80.5	258.5	225.8

[1] Includes miscellaneous business services, not shown separately.

NOTE: Data are from the Current Employment Statistics survey.

The industry also has a very low incidence of unionization. With respect to the occupational structure, there is a relatively large proportion of clerical and service workers in business services. Fifty-four percent of the business services work force are employed in these two occupational groupings, where weekly earnings are relatively low compared with all workers. Owing to a vast difference in the occupational structure of the industry, there is a wide range of average weekly earnings within business services. For example, average weekly earnings in computer and data processing services increased by 120 percent to $411.18 over the 10-year period studied, and were 40 percent greater than the average for all industries in 1984. This is not surprising, given that more than half of the workers in this industry are relatively highly paid administrators, managers, professionals, and technicians. In contrast, average weekly earnings in the services to buildings industry, at $177.41, were 40 percent below the average for all workers. Eighty-eight percent of the workers in the services to buildings industry were in occupations with relatively low wages, such as janitors and cleaners.

As for unionization, workers who are members of unions tend to earn higher wages than nonunion members. In 1984, union members earned, on average, $103 more per week than their nonunion counterparts.[21] Part of the earnings gap between business services and other industries may be related to the fact that only about 6 percent of business services employees were union members in 1984, about 10 percentage points below the average for all U.S. industries.[22]

Tenure and hours

Job tenure is a measure of the length of time an employee has worked continuously for the same employer, although not necessarily in the same occupation.[23] Tenure is generally terminated when a person transfers to a job in a different firm, is laid off for 30 days or more, or enters the Armed Forces. Firms in growing industries usually hire new workers as they expand and, therefore, show relatively low levels of job tenure. Establishments in industries where employment is stagnant or declining do not hire as often, letting positions expire as they become vacant. If a reduction in personnel is required, it will generally be concentrated among persons with the least seniority, which increases the average level of job tenure among those still in the industry. Median job tenure in the rapidly expanding business services industry, as of January 1983, was a relatively low 2.7 years, compared with 4.3 years in all industries.

The comparatively short job tenure for business services employees also reflects the large number of temporary workers in this industry, a result of employment gains in personnel supply services. Another factor affecting job tenure is the relatively large proportion of women. Median job tenure for men was 3.0 years, compared with 2.5 years for women. Only retail trade and private household services, where larger numbers of women are employed, had lower median job tenure.

Not only do workers in business services tend to work for shorter periods for any specific employer, but they also tend to work fewer hours. However, whereas average weekly hours of employment for workers in all industries dropped by 3 percent between 1974 and 1984, average weekly hours of employment in the business services industry increased by 1 percentage point.[24] At 33.6 hours, there is still a gap of 1.7 hours between business services and the average for all industries. A major reason for the narrowing gap was a weekly hours increase of nearly 5 percent to 38.5 hours in computer and data processing services, 3.2 hours more than the average for all industries. In contrast, average weekly hours of employment in services to buildings, where part-time work is typical, was a very low 28.8 hours; even so, weekly hours increased by 4 percent over the decade.

Continued expansion expected

The relative growth of business services employment was particularly rapid in the last 10 years, as firms acquired a greater appreciation of the variety of services that could be provided. Many establishments began contracting out for new specialized business services or for services that formerly were either taken care of inhouse or were neglected, when they realized that these services could be supplied at less expense and more efficiently by business services organizations. Agencies that supply temporary employees also provide customers with the flexibility to meet their short-term employment needs. The strong trend toward the use of outside companies to supply business services is expected to continue. Therefore, job expansion in business services should surpass that of other industries in the future, although prospects for growth in the heterogeneous mix of individual business services industries vary widely. □

FOOTNOTES

[1] BLS and other Federal and State agencies follow as closely as possible the Office of Management and Budget's 1972 *Standard Industrial Classification (SIC) Manual* to define and classify industries in the U.S. economy. Business Services (SIC 73) has seven component industries: advertising (SIC 731); consumer credit reporting and collection (SIC 732); mailing, reproduction, and stenographic services (SIC 733); services to buildings (SIC 734); personnel supply services (SIC 736); computer and data processing services (SIC 737); and miscellaneous business services (SIC 739).

[2] The Current Employment Statistics survey is a monthly survey that samples approximately 270,000 establishments employing more than 35 million people. It counts only wage and salary employees whose names appear on the payroll records of nonagricultural firms. The Current Population Survey reflects a larger segment of the population, although based on a smaller sample of approximately 60,000 households. Information is obtained each month for approximately 120,000 individuals 16 years and over and includes, in addition to nonagricultural wage and salary employment, agricultural employment, the self-employed, unpaid family workers, private household workers, as well as the unemployed, and persons not in the

labor force. For a detailed comparison of the two sample series, see Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9–20. The Occupational Employment Statistics survey is a periodic mail survey conducted by State employment security agencies of a sample of nonfarm establishments to obtain wage and employment information by occupation. These data are used to estimate total employment by occupation for the Nation, for each State, and for selected areas within States. The reference period of the current OES survey was the week that included June 12, 1984.

[3] Complete occupational detail will be published in a forthcoming Bureau of Labor Statistics bulletin, *Occupational Employment in Selected Nonmanufacturing Industries*.

[4] Montgomery Phister, Jr., *Data Processing Technology and Economics* (Bedford, MA., Santa Monica Publishing Co. and Digital Press, 1979), pp. 28–29.

[5] See Montgomery Phister, Jr., *Data Processing*.

[6] For a discussion of these issues, see Stephen T. McCellen, *The Coming Computer Industry Shakeout* (New York, John Wiley and Sons, 1984); and Franklin M. Fisher, *IBM and the U.S. Data Processing Industry: An Economic History* (New York, Praeger Publishers, 1983).

[7] See Stephen T. McCellan, *The Coming Computer*, pp. 135–38.

[8] *Ibid.*, pp. 237–42.

[9] Samuel R. Sacco, "The Growing Importance of Temporary Employees," *The Office*, September 1984, pp. 42 and 47.

[10] Brad Edmondson, "The Home Health Care Market," *American Demographics*, April 1985, pp. 29–30.

[11] See Brad Edmondson, "Home Health Care," pp. 48–49.

[12] Martin J. Gannon, "Preferences of temporary workers: time, variety, and flexibility," *Monthly Labor Review*, August 1984, pp. 26–28.

[13] Karen E. Debats, "The Temporary Services Industry," *Personnel Journal*, February 1983, pp. 120–25.

[14] *Occupational Outlook Handbook*, 1984–85 edition, BLS Bulletin 2205, pp. 36–38.

[15] See *Occupational Outlook Handbook*, pp. 16, 241–42.

[16] Data available only for 1980–84.

[17] For a discussion of the banking industry's movement into the computer services industry and the effect of their entry on free trade and competition in unregulated markets such as computer and data processing or credit reporting and collection, see "Hearings before the Subcommittee on Antitrust and Restraint of Trade Activities Affecting Small Businesses" (U.S. House of Representatives, 97th Cong., May 7, 1981).

[18] For more information on self-employment, see Eugene E. Becker, "Self-employed workers: an update to 1983," *Monthly Labor Review*, July 1984, pp. 14–18.

[19] Data are based on CES estimates of average weekly earnings of production or nonsupervisory workers in private nonagricultural industries.

[20] For more information on the relationship between earnings and occupations, work hours, and other factors, see Earl F. Mellor, "Investigating the differences in weekly earnings of women and men," *Monthly Labor Review*, June 1984, pp. 17–27.

[21] Data refer to members of a labor union or employee association similar to a union.

[22] Based on unpublished union data for detailed industries from the CPS.

[23] Job tenure data are based on the January 1983 supplement to the CPS.

[24] Data are based on CES estimates of average weekly hours of production or nonsupervisory workers in private nonagricultural industries.

Employment growth in the temporary help industry

The number of employees rose by 70 percent from November 1982 to November 1984, making the industry the fastest growing among those with employment over 50,000

MAX L. CAREY AND KIM L. HAZELBAKER

Few industries have grown faster in recent years than the temporary help supply industry. Although still small in overall terms, with 735,000 workers representing less than one percent of total wage and salary employment in nonagricultural establishments in December 1985, the industry almost doubled in employment size in the 3 years since the trough of the recession in 1982 and accounted for 3 percent of the total job growth. Indications are that rapid growth of employment in the industry will continue through the mid-1990's.

As part of an ongoing Bureau of Labor Statistics study of the service-sector portion of the economy, this article documents the job gains recently experienced in the industry, and discusses reasons for the increase in demand for temporary workers and factors leading to the growth in supply of workers for temporary jobs. It also discusses differences in the occupational segments of the temporary help market. The article primarily uses data from the Current Employment Statistics survey and data from reports covered by unemployment insurance programs.[1] It also is based on information obtained through interviews with temporary help supply firms and their customers.

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How the industry works

The temporary help supply industry (SIC 7362) is made up of establishments primarily engaged in supplying temporary help to other businesses. In exchange for providing an employee to a customer, the temporary help firm charges an hourly rate which is equal to the worker's wage plus the firm's markup for its service. The workers are under the supervision of the businesses to whom they are furnished; however, they are on the payroll of the supplying establishment.[2] Temporary help companies recruit and screen applicants for temporary jobs, check references, administer tests to help determine qualifications, and in some cases provide training. They have full responsibility as the employer even though the employee is working at the customer's place of business. They hire and fire, issue paychecks, withhold payroll taxes, and make required employer contributions to programs such as unemployment insurance and Social Security. They also are liable under laws intended to protect the health and safety of workers and assure equal employment opportunities.

Sources of demand

Employers frequently experience short-term changes in their need for workers because of seasonal fluctuations or other factors. The absence of permanent employees for vacation or illness may also create a need. Overtime work can be a solution, but for some businesses it may not be practi-

cal. Overstaffing is another way to assure that a sufficient number of employees will be available at peak periods, but carrying workers who are underutilized much of the time is wasteful. Generally, a less expensive solution is the use of workers from outside the company on an occasional basis as needs arise. The use of temporary workers may be particularly attractive to organizations with high fringe-benefit costs.[3] One of the more pronounced trends in labor costs over the last several years has been the increase in the relative importance of employer-paid benefits. For example, between June 1981 and December 1985, wages increased 27.0 percent, but total compensation costs, including employer costs for employee benefits, rose 29.2 percent.[4] Traditionally, temporary employees have fewer benefits than permanent employees and therefore lower benefit costs.

Uncertainty about the economic climate also can increase employers' preferences for temporary labor. For example, dramatic changes in the overall business climate during the early 1980's made employers less certain about the future course of economic events and, therefore, less willing to bring on additional permanent staff to deal with increases in orders that they thought might be only temporary. In particular, the far-reaching negative experiences of the large layoffs and deep staff cuts undertaken during the 1981–82 recession influenced many employers' staffing decisions in the following recovery. To many employers, the vow to stay "lean-and-mean" has particular implications for the use of temporary help versus permanent staff.

Sources of supply

For some people, temporary jobs are a stopgap until they find a permanent job. Others seek temporary jobs because they want the schedule flexibility that will allow time for activities such as taking care of children or attending school. Clearly the continuing increase in the labor force participation rates of women, many of whom combine work and family responsibilities, has contributed to the available pool of people seeking these jobs. Temporary jobs also can be attractive to retirees and other workers who want more leisure time. In addition, these jobs can be a way of keeping skills up to date or trying a variety of employers.

Although employers and individuals seeking temporary jobs often deal directly with each other in the labor market, both parties may benefit from using the temporary help firm as an intermediary. For short-term jobs, the markup for the service usually is lower than the customer's cost of recruiting a person and putting him or her on the payroll. These firms can also fill orders quickly because they maintain contact with large numbers of qualified personnel who will take brief assignments on short notice. In addition, the consequences of getting an unsatisfactory worker are less onerous because the customer can simply request a replacement. For workers who are looking for temporary assignments, the firm can reduce job-search costs. Finding a job on one's own can be costly in terms of time and money and may not make sense if it is to last only a few days. Using this service can mean more time working and less time looking.

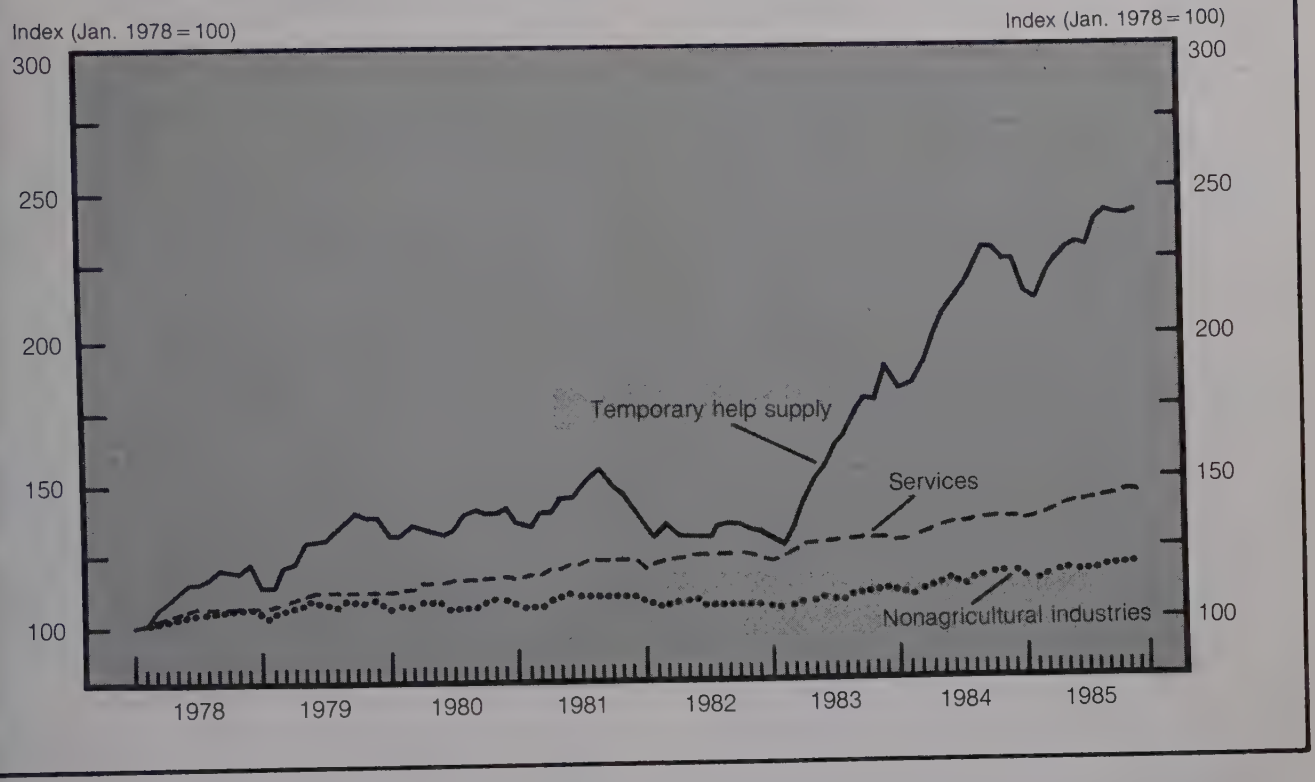
Occupational markets

Establishments in the temporary help industry usually specialize in one of the following four markets: office, industrial, medical, or engineering and technical. Many establishments that are primarily suppliers of office help, however, also supply industrial workers. Those providing medical workers or engineering and technical workers are more likely to specialize exclusively in these fields. Some of the large firms in the industry are involved in more than one market and have separate subsidiaries or divisions to deal with each.

Occupational data are not available specifically for the industry, but its staffing pattern can be approximated from data on the personnel supply services industry group (SIC 736) of which it is a part. The temporary help industry made up about three-quarters of this group's employment in 1985; employment agencies (SIC 7361) accounted for most of the remainder. Analysis of the Bureau's 1984 industry-occupation matrix indicates that office occupations accounted for more than one-half of total employment in personnel supply services, industrial occupations, almost three-tenths, and medical occupations, about one-tenth. Only a small proportion of the employment was in engineering and technical fields.[5] The magnitude of employment in the latter occupations, however, may be much greater than the data would imply because many establishments that furnish temporary help in engineering and technician occupations apparently are frequently classified in the engineering and architectural services industry rather than in the temporary help industry.[6]

Office market. This market consists mostly of clerical workers such as secretaries, typists, receptionists, computer operators, and general office clerks. However, it also includes accountants and marketing and sales workers. Most industries use temporary office workers. Among the largest users are the following major industry groups—services; wholesale and retail trade; manufacturing; and finance, insurance, and real estate. Many office jobs can be filled by temporary workers because the basic skills needed for particular occupations do not vary much from one employer to another. Customers usually are very specific about requirements for assignments. For example, in placing an order, a company may specify that it needs one typist skilled in preparing statistical tables to assist on a rush project and another who can type more than 60 words per minute to substitute for a permanent employee who is recovering from an illness. The demand for temporary workers in office jobs generally is less sensitive to seasonal and cyclical changes than the demand for industrial workers and engineering and technical workers. Customers usually need experienced

Chart 1. Comparison of employment growth indexes in the temporary help, services, and nonagricultural industries, 1978-85



workers because they cannot afford to train persons for short assignments. Temporary help firms typically strive to ensure that all workers on their rolls meet specified minimum skill levels. Normally this is accomplished through clerical skills testing. Certification of the temporary employees' skills is felt to be quite important in the office market. In general, the firms do not offer skills training to applicants but prefer to deal with already trained and experienced personnel. However, when the local labor market is tight, they may sponsor clerical training classes in order to increase the pool of trained applicants. Some firms also provide basic and advanced instruction on word-processing equipment and personal computers.

The temporary help office market is dominated by relatively large, multi-establishment companies, some national in scope. They compete quite vigorously with one another within large metropolitan labor markets. Factors in the predominance of large firms include the customers' need for quick action on the filling of job-orders for temporary clerical and other office help. Typically, orders are placed at least one day in advance, but some orders are for personnel to report in a few hours. This fast turnaround necessitates a large and current file of clerical help available for almost instantaneous referral to customers' worksites.

Many workers with office skills are not looking for regular, full-time employment. A large number are mothers who want to schedule work around family responsibilities. Some are schoolteachers who supplement their income by working during summer. Others are recent college graduates who need some income until they find employment related to their studies. Temporary help companies try to accommodate preferences for particular days or hours of work, and the frequency and duration of assignments. Some of their employees, however, are seeking permanent jobs, and the temporary assignments can lead to these jobs.

The transfer of an employee from a temporary help firm's payroll to a customer's payroll is called a "T-to-P" conversion—that is, the hiring, on a permanent basis, of temporary workers supplied by the firm. This practice is thought to be more common for office workers than other occupations, although it also occurs with industrial workers. A potential exists for the customer to use the firm as a screening and placement tool, but without the associated agency fees. The firms deal with this dilemma in a variety of ways. Those which are active in both the temporary help market and the placement market simply charge the customer a negotiated placement fee. Others specify that in "T-to-P" conversions the customer will be billed for a certain minimum number of hours for the worker involved. Some specify the payment of a liquidation fee. A ban on the permanent hiring of tempo-

raries for some period of time after their use is sometimes contained in contracts between the supplying firm and the customer.

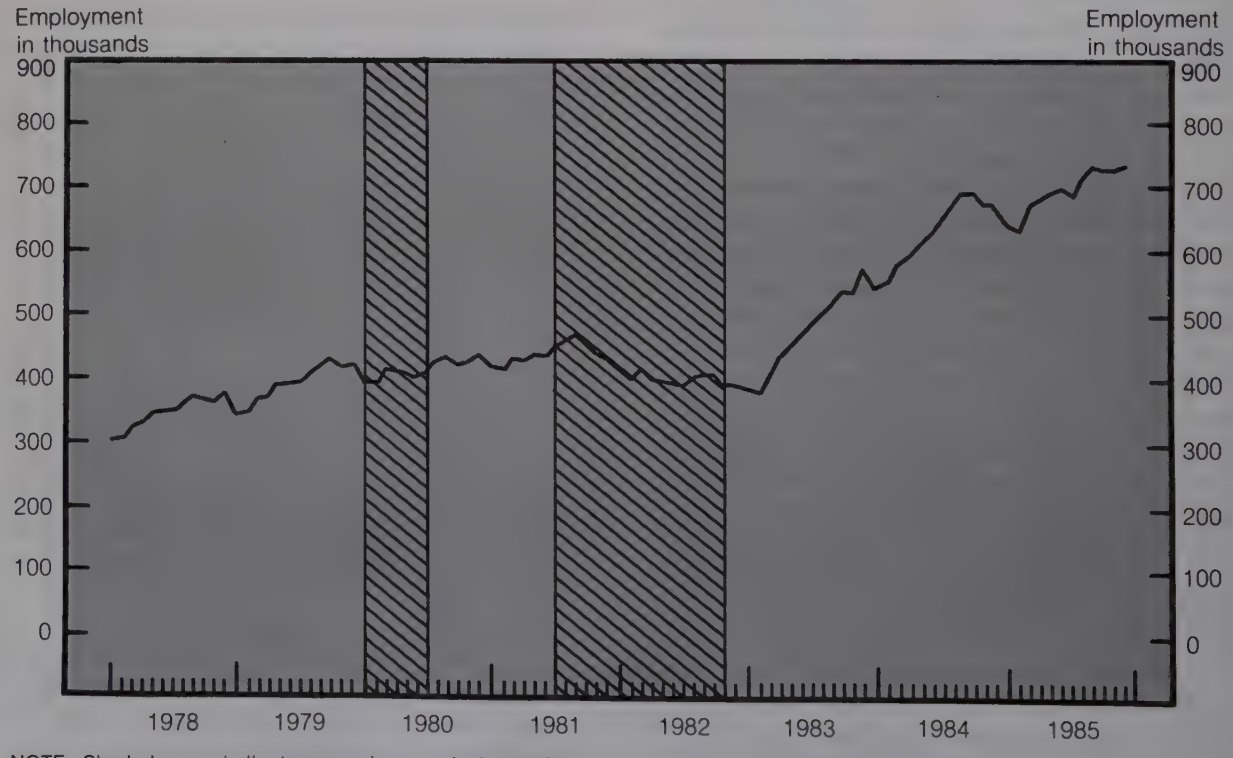
As a general rule, in a given labor market, temporary clerical workers are employed at lower wage rates than their permanent counterparts. The total hourly cost to the customer for the temporary worker, however, may be as much or more than the total hourly cost of the customer's permanent workers.

Industrial market. A large proportion of the employees in the industrial segment of the temporary help market are helpers, laborers, and material movers, and many others are service workers, such as food and beverage preparation workers. Little, if any, work experience is necessary for most of these jobs. Other occupations include truck drivers, machine operators and assemblers, and craft workers. Customers for industrial temporaries are found in many industries—wholesale and retail trade, construction, manufacturing, and transportation are major users. The reason for using industrial temporaries frequently is work overloads. For example, a manufacturer or wholesaler may need extra help to unload an unusually large shipment. A building contractor may need workers to assist in cleaning up around a project. Absences of regular employees also may be a reason. The demand for industrial workers probably is more sensitive to seasonal and cyclical influences than the need for other temporary personnel.

Rates of pay for temporary workers in industrial occupations are low because the jobs usually require little training or skill. At the same time, the markup charged for supplying these workers tends to be high because the menial nature of the jobs results in a very large turnover, which adds to recruitment and administrative costs. The transportation of employees also may be a cost. To make sure customers receive the number of workers requested, some firms require employees to report to their offices each morning instead of going directly to customers' premises. Work crews are then assembled, transported to the jobs in company vehicles, and returned to the office at the end of the day. As a result of these costs, temporary workers in the least skilled jobs frequently have much lower pay rates than regular employees in the same kinds of jobs.

Although many of the industrial employees of temporary help firms are interested only in occasional employment, others see temporary assignments as stepping stones to higher paying regular jobs with the most desirable companies. Employers do hire temporaries who have demonstrated that they are good workers, but the demand for unskilled workers usually is much smaller than the number of people

Chart 2. Employment growth in the temporary help industry, 1978-85



NOTE: Shaded areas indicate recessions as designated by the National Bureau of Economic Research.

seeking the jobs. Many firms do not seek payment of liquidation damages from customers that hire their industrial employees.

Medical market. Registered nurses and licensed practical nurses represent most medical employees of the temporary help industry. Some employees also are nursing aides, orderlies, and attendants. The industry is relatively new to the medical market, having emerged during the 1970's when hospitals were faced with shortages of registered nurses attributed, in part, to population growth and greater coverage under health insurance programs. It provided an alternative to traditional sources of personnel for temporary duty—nursing registries which find assignments for self-employed nurses for a fee and on-call pools operated by hospitals and other health care institutions for their own needs.[7]

The principal users of medical personnel supplied by the temporary help industry are hospitals, nursing homes, and private households (home health care). Temporary workers are needed by hospitals and nursing homes to fill in for regular employees who are on vacation, ill, or absent for other reasons. A surge in a hospital's patient population as a result of an epidemic or disaster would temporarily increase the need for personnel too. In addition, temporaries have been used to alleviate shortages of registered nurses. Assignments in hospitals and nursing homes may be for as little as one work shift, but they are more likely to be for two or three days, and some last even longer. Temporaries may also get the least desirable shifts—evenings, nights, and weekends. Medical workers are needed in private households to care for patients who have been released from hospitals to recuperate at home or who have become too sick or frail to care for themselves. An assignment in a patient's home can be long term. The demand for medical temporary personnel is greatest during the summer, when many regular staff members take vacations and patients schedule elective surgery to coincide with their vacations. Use of temporary medical workers in hospitals is usually limited to registered nurses, while nursing homes and private households may use both registered nurses and licensed practical nurses, as well as nursing aides, orderlies, and attendants.

Temporary help companies generally hire only registered nurses and licensed practical nurses who have a year or more of work experience in their occupations. Nurses may want to limit work in order to care for children, attend school, or simply to have more leisure time. In some cases, they work primarily to keep their skills up to date instead of for the income. On the other hand, a small number of nurses have full-time jobs and moonlight to supplement their income. Firms in the industry usually provide malpractice insurance and bonding insurance; some also provide health insurance, life insurance, and other fringe benefits, but the benefits are less generous than those provided by hospitals and other institutions for their regular staffs.

Engineering and technical market. Businesses that specialize in this segment of the temporary help market frequently are called job shops. Most of their employees are engineers, designers, and nonmedical technicians such as drafters, engineering technicians, and computer programmers. Job shops provide essentially the same kind of services as other temporary help firms and charge for them in the same way. The scope of operation, however, may be national and even international, whereas companies that specialize in clerical, medical, or industrial temporary workers concentrate on local markets. An office in Boston, for example, may recruit engineers from New England for a customer in Los Angeles. Unlike other temporary help firms, the job shop generally does not select the applicant, but provides several resumes for the customer's consideration. Another thing unique about some job shops is that they offer in-house engineering and technical services—the work is done on their premises rather than on those of the customer. In-house work, however, accounts for only a small part of employment in this business.

A large proportion of job shop customers are in aerospace manufacturing, electronics manufacturing, shipbuilding and repairing, and other industries that depend heavily on defense work. Job shops serve a variety of other manufacturing industries, including producers of automobiles, industrial machinery, and chemicals. Organizations that contract to perform engineering services also are customers. The need for engineers and technicians on a temporary basis usually arises as a result of major projects to develop new products or facilities. An aerospace company may need additional personnel, for example, to help design a new aircraft and get it into production on schedule. An engineering services firm may require extra help on a contract to design and build a new plant for a customer. Employers also may turn to job shops when they are unable to recruit enough regular employees to staff a project. Relatively few engineers and technicians are employed temporarily to fill in for absent workers. Businesses frequently are able to anticipate their need for temporary personnel well in advance, and usually can estimate how long they will be needed. Assignments are of a relatively long duration—6 months to 12 months is typical, and up to 2 years is not uncommon. Temporary to permanent conversions usually do not occur during these assignments. The job shop may be able to place the employee with another customer when the assignment ends or the employee may take a permanent job elsewhere.

Engineers and technicians frequently can earn more take-home pay in temporary jobs than they can in regular jobs. Fringe benefits, however, usually are limited to paid vacations and holidays, and medical and life insurance at group rates. Although high pay probably is the main reason engineers and technicians seek temporary jobs, the variety of assignments and geographic locations also may be attractions. Not all of these workers are geographically mobile. "Freeway" or "subway" job shopper is industry parlance for

the person who goes from one assignment to another in the same metropolitan area. A "road" job shopper is a person who is willing to relocate. Work experience usually is a requirement for temporary assignments in engineer and technician fields. Many job shoppers are single persons in their late twenties and early thirties. Married workers, particularly those with children at home, are less likely to seek these jobs. Compared with engineers and technicians in regular jobs, job shoppers are more likely to be laid off of an assignment as a result of cutbacks in defense or research and development expenditures.

Employment growth

Average annual employment in the temporary help industry grew from about 340,000 in 1978 to 695,000 in 1985, an increase of 104 percent, which was 3 times the rate of increase for the rapidly expanding services division and over 8 times the rate for all nonagricultural industries (chart 1). Employment in the industry reflected changing business conditions during this period. It increased significantly in 1978–79, slowed as the economy weakened in 1980, and then declined slightly during the 1981–82 recession (chart 2). At the trough of the recession in November 1982, the industry employed 400,000 workers, about 8.4 percent fewer than a year before. Employment increased 70 percent between November 1982 and November 1984; within a span of 2 years the industry had added about 280,000 workers to its payrolls. In fact, during these 2 years, temporary help was the fastest growing industry among those with employment greater than 50,000.[8]

The industry's employment expansion early in an economic recovery is related to the hesitancy of many employers to expand their own permanent staff until the upward course of business conditions has become more certain. Therefore, in order to adjust their work force to increases in product demand, employers turn to a variety of short-run strategies. These strategies may include increasing hours of work for those employees already on the payroll, subcontracting portions of work to other firms, hiring part-time or temporary workers themselves, and using employees of temporary help companies. There are a variety of causal factors at work and the exact mix of strategies used by any one firm or one industry depends on their relative importance. For some, the time needed to recruit, hire, or train additional workers may preclude the use of increased permanent staff. Other employers may have labor cost structures which inhibit, or labor contracts which limit, the use of greatly lengthened workhours. Many employers prefer not to subcontract additional work to other companies for obvious competitive reasons. Given these circumstances, the use of trained workers who are available on short notice from a temporary help firm is an attractive alternative to many employers. Indeed, the quick response of these firms to increases in the demand for workers is one of the most important attributes of the industry.

The initial cyclical expansion of temporary help employment tends to slow over time. The cyclical growth spurt associated with the most recent recovery ended in the fall of 1984. More modest growth has resulted in the addition of only 60,000 jobs in 1985 (chart 2). Even so, this 8.7-percent employment growth was nearly 3 times the rate for all industries in 1985. As the economic recovery matures, the use of temporary help is mitigated somewhat by employers' desires to hire full-time staff for their own payrolls. Several factors are at work here as well, including the realization that increases in business have become more certain and that there is a need for individual employers to compete for the available pool of trained labor. Therefore, employment increases in the industry that are solely attributable to the upswing in the business cycle tend to moderate during the later stages of recoveries.

Growth in the industry's employment has come principally from increasing numbers of establishments rather than from increasing establishment size. The number of reporting units in the industry rose from about 3,690 in the first quarter of 1978 to 7,750 for the same period in 1985, while the average number of employees per unit decreased slightly from 83.4 to 82.4. The increases in the number of establishments are largely attributed to what are perceived to be low barriers to entry and relatively small startup costs.

Temporary help industry employment varies substantially from State to State and from area to area. The States with above average growth rates tend to have higher proportions of the employment than those with below average growth. Many high growth States, such as Arizona, California, and Colorado have an incidence of employment in this industry that is about 50 percent higher than the Nation as a whole. The geographic relationship between high employment growth rates and concentration of temporary help mirrors the observation at the national level that the industry's growth is higher when the national economy is expanding.

Projected growth

The Bureau of Labor Statistics has developed three alternative sets of economic and employment projections for the U.S. economy for the year 1995. The macroeconomic assumptions underlying these projections, which consist of a high-growth, moderate-growth and low-growth scenario, were presented in the November 1985 issue of the *Review*.[9] Based on the moderate-growth case, employment in the temporary help industry is projected to increase an average of 5 percent a year between 1984 and 1995, faster than the 4.2-percent rate for business services as a whole and much faster than the 1.3-percent rate for all industries. Employment in the industry would reach almost 1,060,000 in 1995, a gain of about 430,000 jobs over the 1984 level. Under the high-growth and low-growth scenarios, employment levels are expected to range from about 1 million to 1.1 million in 1995. The projected growth rates are much slower than the increases experienced by the industry during the recovery

from the recession, and more in line with the growth over the last year (December 1984 to December 1985).

Employment in office occupations is expected to grow about as rapidly as total employment in the temporary help industry. As the industry's customers automate offices, however, it should receive relatively more requests for temporary workers with the latest skills such as computer operators, peripheral equipment operators, and secretaries and typists who can operate word processors and personal computers. At the same time, office technology may result in relatively fewer orders for file clerks, mail clerks, and data entry keyers. Some temporary help companies see potential in "home based" offices for selected employees. Computerized equipment in the homes of these workers would enable them to transcribe material and produce printed copy in customer's offices miles away.

Employment of engineers and technical workers in temporary assignments may rise faster than total employment in the industry, at least through 1990. A large part of the growth in these jobs is expected to result from increased investment in capital equipment. An investment boom is projected because of expected lower real interest rates, the prospect of a stable economy, and the desire of manufacturers to take advantage of new technologies—purchases of which were postponed during the low-investment years of 1980–82. Growth also is expected in defense-related industries. Real defense purchases of goods and services are projected to increase 5.3 percent annually between 1984 and 1990, and then taper off. This spending should increase the number of temporary jobs for product design and related activities in the aircraft and guided missiles, ordnance, shipbuilding and repair, and communication equipment industries. If defense expenditures, however, are significantly different, job prospects will be altered.

Industrial jobs are expected to grow slower than the industry's employment as a whole. The demand for workers in these jobs depends significantly on orders from manufacturers. Employment in manufacturing is projected to rise at one-half the rate of employment in all industries during the 1984–95 period. Some rapid growth firms in high-tech fields may favor using temporaries because demand for their products can change very quickly. The long-term prospects in manufacturing probably are not favorable, however, because industrial workers generally have the kinds of jobs most susceptible to laborsaving technology. Increases in the demand for industrial temporary workers are expected to come mostly from other sectors of the economy, such as construction and wholesale and retail trade.

Future increases in the demand for temporary workers in medical fields are expected to be concentrated in nursing homes and private residences. The growing number of elderly and disabled persons in need of long-term care is rising rapidly, which is increasing the demand for nurses in these settings. In addition, to hold down costs, hospitals are discharging patients as soon as possible, which means that more people will be recovering from surgery, stroke, or other major disabilities in nursing homes or their own homes. Many of them will need intravenous therapy, respirator support, and other equipment that requires the supervision of registered nurses. Changes in private insurance and Medicare coverage are making home health care more affordable for patients recovering from acute illnesses. Much of the increase in demand for temporary medical personnel will occur in home health care, because these jobs by their nature tend to be less continuous than those in hospitals and nursing homes. Some temporary help firms have developed comprehensive programs for delivering a package of services to the home patient, including periodic visits by a registered nurse and basic care by licensed practical nurses and nurses' aides. Competition from visiting nurses associations (classified in SIC 8091), nurses registries (classified in SIC 7361), and other industries that provide home health care services, however, may limit growth for the temporary help industry in this market. Expansion also may be limited by a lack of employees who are willing to work in the evening, at night, and on weekends.[10] The outlook in hospitals is not clear. Cost containment efforts probably are greatly reducing overstaffing as a way of handling variations in workloads, thus making hospitals more dependent on temporary nurses when needs suddenly rise. Many large hospitals, however, may prefer to operate their own temporary nurse pools. □

——FOOTNOTES——

[1] Wage and salary employment levels for 1978 through 1981 were obtained from State reports of establishments covered under State unemployment insurance laws. These reports cover about 98 percent of total civilian wage and salary employees on nonagricultural payrolls in the United States. Estimates of wage and salary employment for 1982–85 were obtained from the Bureau of Labor Statistics' Current Employment Statistics (CES) program, which provides information from payroll records of employees based on a sample survey of establishments. Employment data from these two sources are basically comparable. In fact, the State reports of establishments covered under unemployment insurance laws are the primary sources of benchmark information for the Current Employment Statistics program. A description of the two sources appears in the monthly Bureau of Labor Statistics publication, *Employment and Earnings*.

[2] Many businesses besides those in the temporary help supply industry provide personnel to other organizations on a contract or fee basis. Included among these are employee leasing firms (SIC 7369) which supply all the workers needed by an organization, and companies that provide a special service such as managerial (SIC 7392), janitorial (SIC 7349), or guard (SIC 7393). Jobs with these firms, however, generally are not temporary. Also, workers usually are supervised by the supplying firm instead of the customer, except in the case of employee leasing.

[3] Donald Mayhall and Kristin Nelson, *The Temporary Help Supply Service and the Temporary Labor Market* (Salt Lake City, UT., Olympus Research Corporation, December 14, 1982).

[4] Employment Cost Index–December 1985, BLS News Release, January 28, 1985. The trend of larger increases in benefits than wages reversed in 1985, when wages were up 4.4 percent, compared with 4.3 percent for total compensation.

[5] Estimates for the four markets are based on the following occupational

categories from the Bureau's industry-occupation matrix for the personnel supply services industry. *Office:* administrative support occupations, including clerical; managerial and management related occupations; marketing and sales occupations; lawyers; teachers, librarians, and counselors; legal assistants and technicians. *Industrial:* helpers, laborers, and material movers; transportation and material moving machine and vehicle operators; precision production, craft, and repair occupations; machine operators, assemblers, and inspectors; agriculture related occupations; service occupations (except health service and related occupations). *Medical:* health diagnosing and treating occupations; health technicians and technologists; health service and related occupations. *Engineering and technical:* engineers, architects, and surveyors; natural, computer, and mathematical scientists; social scientists; writers and artists; technician occupations (except health technicians and technologists, and legal assistants and technicians).

[6] Establishments that supply engineers and other nonmedical technical personnel to customers for temporary assignments are called job shops. Analysis of available information indicates a lack of consistency in the industry classification of job shops. While some of these establishments are classified in the temporary help supply industry (SIC 7362), the bulk of them n appear to be classified in the engineering, architectural, and surveying g services industry (SIC 8911). Many officials of job shop firms prefer clas- sification under SIC 8911 because they associate SIC 7362 with clerical l occupations. Data on the number of workers supplied by job shops are not c available, but some industry observers estimate that it may have been as s high as 150,000 in 1985.

[7] Barbara H. Kehrer and others, *Study of the Utilization and Effects of f Temporary Nursing Services* (Princeton, NJ, Mathematica Policy Research, , Inc., Feb. 28, 1983).

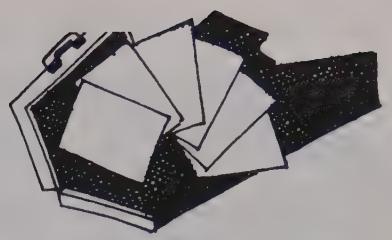
[8] Growth in the temporary help supply industry is compared with other r industries described in the Standard Industrial Classification system at the : detailed (4-digit) level.

[9] See several projection articles in the *Monthly Labor Review*, November r 1985, pp. 3–59.

[10] Martin J. Gannon, "Preferences of temporary workers: time, variety, , and flexibility," *Monthly Labor Review*, August 1984, pp. 26–28.

A note on communications

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.



Conference Papers

The following excerpts, closely related to the work of BLS, are adapted from papers presented at the Thirty-Eighth Annual Meeting of the Industrial Relations Research Association, December 1985, in New York.

The full text of the papers appears in the copyrighted IRRA publication, *Proceedings of the Thirty-Eighth Annual Meetings*, available from IRRA, University of Wisconsin, Social Science Building, Madison, WI 53706.

'Union avoidance:' management's new industrial relations strategy

JOHN CHALYKOFF AND PETER CAPPELLI

As industrial relations in the United States continue to experience rapid change even as the economy improves, it is becoming clear that market pressures are not the only forces driving these changes. In particular, the growing variance in labor practices within industries suggests the need to look not only at pressures from the environment, but also at the different strategies and tactics introduced by the parties at the firm level. Many argue that the most important of these currently operate from the management side.

The most important of management strategies may be the decision to try to avoid unions altogether. One of the more controversial of such efforts is the use of aggressive campaigns in representational elections. These often include management unfair labor practices which, as Paul Weiler pointed out in 1983, have increased fivefold since the 1950's.[1] The upward trend in management unfair labor practices parallels quite closely the decline in public support for unions over this period.[2]

In many ways, the more desirable strategy for management would be to avoid representational campaigns altogether. What such strategies have in common is an effort to move production away from current areas of union strength which may make it possible to avoid dealing with unions at all.[3]

Explaining union avoidance

What factors cause firms to pursue strategies which lead to the avoidance of unions? A unique survey of management industrial relations practices conducted by The Conference Board in 1977 and 1983 may help answer that question. The survey asked about a range of organizational characteristics, labor relations practices, and bargaining outcomes in unionized firms. It also asked directly about the priority given to "union avoidance" strategies; is it a higher priority than achieving favorable outcomes in collective bargaining ("best bargain" strategies)?[4] The following tabulation shows the breakdown of responses for the 228 unionized firms answering in both 1977 and 1983:

	Same strategy in 1978 and 1983		*Switched strategy in 1983*	
	Percent	*Number*	*Percent*	*Number*
Union avoidance strategies	25	56	20	46
Best bargain strategies	49	111	6	15

As one might expect, the priority shifts toward union avoidance in 1983. Looking at those firms whose positions were consistent in both years (56 union avoidance firms, 111 best bargain firms), several factors seem to explain their decision. One factor concerns the ability of unions to counter union avoidance strategies. The United Auto Workers, for example, got General Motors to agree to be neutral in representational campaigns in its southern plants, and recently secured agreements to limit subcontracting; airline and trucking unions have secured restrictions on double-breasted operations.

The statistical association between three variables—percent of a firm's work force organized, plant-by-plant bargaining structure, and number of new establishments opened since 1975—and the priority attached to union avoidance for firms whose strategy was the same in 1978 and 1983 suggests that the association is strong, especially with the percent of the firm's work force organized. The first two variables help measure the ability of unions to counter such strategies, while the last variable measures the opportunity for firms to pursue these strategies. A separate

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discriminant function analysis finds that these three variables correctly classify 91 percent of the union avoidance firms and 88 percent of the best bargain firms.[5]

Consequence of union avoidance

Perhaps the most important and most obvious consequence of a union avoidance strategy is its effect on union membership and growth within unionized firms. Overall, unionization in union avoidance firms dropped, on average, from 23.5 percent in 1977 to 18.6 in 1983, compared with 63.5 to 60.5 percent for best bargain firms over the same period.[6] Because union coverage was substantially lower in the former to begin with, its decline in percentage terms is much more substantial; a 20.8-percent decline in coverage for union avoidance firms, compared with a 5-percent decline for best bargain firms.

Some indication of how this decline came about is suggested by the data in the following tabulation:

	Union avoidance firms	*Best bargain firms*
Average number of representational elections held in last 5 years	4.03	2.22
Proportion of representational elections won by union in last 5 years	.177	.379
Average number of new plants opened since 1975	4.51	1.97
Proportion of new plants organized	.076	.439

As measured by plant openings, the union avoidance firms—which are less unionized—appear to be growing about twice as fast as the best bargain firms. Most importantly, union election victories occur half as often in union avoidance firms as in best bargain firms. It is perhaps surprising, therefore, that unions do not appear to be concentrating their organizing efforts at the best bargain firms. The ratio of elections to plant openings is about the same for both sets of firms.[7] This suggests, if anything, that more union resources are directed at the union avoidance firms, as one would imagine that it is more difficult and costly to secure elections in them.

Overall, new plants at best bargain firms are almost six times more likely to be organized than their counterparts at union avoidance firms.[8] This difference seems very large given that the overall union win rate is only twice as great in the former—especially if we assume that the ratio of elections to new plants is roughly similar for firms in both groups.[9] The explanation could be that union avoidance firms run election campaigns that are much more successful in their new plants than in their old ones. While this may play some role, it seems more likely that the great difference in organization rates at new plants is due to the greater ability of union avoidance firms to keep representational campaigns away from their new plants.

Differences in collective bargaining outcomes are also associated with the union avoidance priority. For example, the survey results suggest that union avoidance firms pay lower wages to their union employees, other things being equal. Even though best bargaining firms are concentrating their efforts on collective bargaining, the lower union coverage of avoidance firms appears to give them greater bargaining power vis-a-vis their unions and leads to lower settlements.[10] □

——FOOTNOTES——

[1] Paul Weiler, "Promises to Keep: Securing Workers' Rights to Self-Organize under the NLRB," *Harvard Law Review*, June 1983, p. 1769.

[2] The first sharp increase occurs in the late 1950's when union corruption came to the public's attention, culminating in the McClellan hearings and the Landrum-Griffin Act. The next sharp increase occurred in the early 1970's when any macroeconomic justification for unions was eroding.

[3] Thomas A. Kochan, Robert B. McKersie, and Peter Cappelli, "Strategic Choice and Industrial Relations Theory," *Industrial Relations*, Winter 1984, pp. 16–39. The authors argue that these strategic decisions which help shape union-management relations take place outside of collective bargaining; the most important appear to be management decisions at the corporate level.

[4] The question asked, "Which is more important to your firm, keeping as much of the company as possible nonunion or achieving the most favorable bargain possible?" It is not asking which situation the company would prefer. We recognize the possibility that a firm's reply may simply be a proxy for existing practices rather than an independent statement of policy that will influence labor relations decisions. Our purposes are served, however, as long as it is an accurate proxy for those decisions. For a description of the survey and the overall conclusions, see Audrey Freedman, "The New Look in Wage Policy and Employment Relations," Report 865 (New York, The Conference Board, 1985). Thomas A. Kochan, Robert B. McKersie, and John Chalykoff investigate some of the survey's important results in detail in "Corporate Strategy, Workplace Innovations, and Union Members," *Industrial and Labor Relations Review*, forthcoming.

[5] Those firms which switched to a union avoidance strategy in 1983 also had significantly lower union coverage and less centralized bargaining structures than best bargain firms, perhaps suggesting that these variables also influence the ability of firms to switch to a union avoidance strategy.

[6] We recognize the possibility that independent factors associated statistically with this choice of strategy could be behind these results. Attempts to find statistical associations between the choice of strategy and potential sources of influence other than those discussed earlier, such as the nature of the industry, proved insignificant.

[7] Of course, established plants can also be targets for organizing. The assumption here is simply that union campaigns are directed at new plants in roughly the same proportion for both union avoidance and best bargain firms.

[8] Firms that switched to union avoidance strategies also won more elections and had fewer new plants organized than did best bargain firms.

[9] If the proportion of elections held at new plants was in fact the same for both union avoidance and best bargain firms, the latter would be only $2\frac{1}{2}$ times likely to be organized, given win rates.

[10] The regression results supporting this conclusion are available upon request. See John Chalykoff, "Industrial Relations at the Strategic Level: Indicators and Outcomes," *MIT Working Papers*, October 1985, for other outcomes associated with this variable.

Environmental factors in the labor-management relationship

PAULA B. VOOS

In recent years, there has been an explosion of interest in cooperative labor relations. Employee participation programs, gain-sharing programs, and joint union-management committees of various types have all received considerable scrutiny. However, while there has been discussion of the economic circumstances which lead the parties to experiment with such programs, there has been less consideration of the extent to which the collective bargaining environment is itself separately and systematically related to the type of labor relations that emerge.

This is surprising insofar as the influence of economic and organizational factors on labor-management relations was discussed at length by an earlier generation of industrial relations scholars and practitioners. On the basis of numerous case studies, the earlier scholarship concluded that the environment was extremely influential and probably set the limits of union-management cooperation in any particular firm. If the environmental factors are very influential, they may seriously constrain the success of programs to improve labor relations.

This analysis explores the impact of certain environmental variables on the overall labor relations climate of the firm as it is perceived by management. The variables were selected after careful review of the earlier literature. Hypotheses concerning each variable were tested using a multiple regression equation context and cross-sectional data gathered by the author.[1]

Study scope and method

The data used in the study are from an anonymous mail questionnaire sent to a 624-member sample of managers of unionized Wisconsin firms in autumn of 1984. In addition to questions on key firm characteristics, managers were asked to categorize the overall relationship existing between their company and the union representing their employees as (1) exceptionally good, (2) very good, (3) fairly good, (4) neither good nor poor, (5) fairly poor, (6) very poor, or (7) exceptionally poor.[2]

Usable questionnaires were returned by 339 managers. While there is always some self-selection in survey data, more than 50 percent of the managers in the initial sample produced the assessment of their firm's labor relations which is used in this research. Consequently, these data provide a reasonable basis for the test of a number of hypotheses about the impact of the environment on labor relations, at least insofar as the overall union-management climate is perceived accurately by managers.

Because the managerial assessments of the overall union-management relationship were categorical, a simple probit model was adopted in the initial analysis. The coefficients produced by maximum likelihood estimation of such a probit model can be interpreted as measuring the impact of each economic or organizational variable on the probability that the firm will be perceived by the responding manager to have good or better labor management relations. The hypotheses about the important environmental variables were generated from an examination of the earlier literature. Specifically, it was hypothesized that good labor-management relationships are more probable where:

- Companies are of moderate size.
- The union-management relationship is of longer duration.
- The company is located in a metropolitan area.[3]
- There have not been major changes in production technology, skill requirements, or product produced in the 4 years prior to the survey.
- The economic position of the firm is secure as indicated by the trend in company profits over the 1980–84 period.
- Industry bargaining patterns are stable, that is, there has been no major change in the bargaining pattern in the industry in the prior 4 years.
- Management is stable and secure as indicated by the absence of a major change in company management or ownership in the preceding 4 years.
- The local union is stable and secure, as measured on two variables: 1) no major change in local union officers had occurred in the past 4 years, and 2) there had been no other organizational instability on the union side, including internal political turmoil in the union, a recent unsuccessful decertification attempt, or an unsuccessful attempt to change the union representing employees.[4]

Along with the above hypotheses, an additional contemporary factor was examined: management's strategy in recent collective bargaining negotiations. The hypothesis was that concession demands can be a source of disruption in overall union-management relationships. Two variables were entered to gauge the effects when management had sought 1) major concessions with regard to wages, health benefits, COLA clauses, or work rules in the most recent negotiations, or 2) minor concessions in these same items.

Results of the estimation

While several of the hypotheses were substantiated by the estimated probit equations, others failed to receive support at conventional levels of significance. As predicted, organizations moderate to large in size were more likely to have good labor relations than either small or very large firms. The probability of good relations increased up to unit sizes

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of between 1,700 to 1,900 employees and decreased thereafter.

Moreover, good relationships were significantly less likely if the union involved had represented employees for less than 4 years. New labor-management relationships were less smooth, as expected. However, relationships that had lasted more than 20 years were neither better nor worse than moderately old (4- to 20-year) relationships. The estimates also indicate that firms located in the urban area of Milwaukee had better labor-management relations than firms located in the smaller cities and towns of Wisconsin. It would be interesting to learn if this is also the case in other States.

On the other hand, most of the variables measuring recent economic and organizational stresses on the union-management relationship failed to be significantly related to the probability that a good union-management relationship was present. As anticipated, major changes in industry bargaining patterns, company ownership, or management, and turnover of local union officials carried negative coefficients, but these coefficients were not significant. Only other organizational instability in the union, a variable measuring internal political turmoil or union insecurity in the collective bargaining relationship itself, carried a significant coefficient. Thus, this study does provide support for the view that union leaders must be secure if they are to pursue cooperative labor relations. Either political strife within the union or an insecure relationship with management can lessen the probability of good relations.

Finally, changing technology, skill requirements, or product, and major decreases in company profits actually had positive, albeit insignificant, impacts on labor relations. Similar positive results were also obtained for the variables measuring increases in foreign and domestic competition, contrary to the hypotheses. It appears that economic pressure on the firm can be accompanied by either good or poor union-management relations; the point estimates from this study were all in accord with the view that relations are better in companies under more economic pressure, on average, but the insignificance of the coefficients indicated that this is not a reliable conclusion.

It is also interesting to note, given the recent increase in concession bargaining, that management demands for concessions did not necessarily worsen overall relations; the coefficients on both variables designed to test the hypothesis were negative but insignificant. □

———*FOOTNOTES*———

[1] It is recognized that this statistical approach is a departure from the case study methodology which has long characterized this area of research. The goal is not to supplant that methodology, but to complement it by determining whether or not certain economic and organizational factors are statistically related to the type of labor relations existing in a large number of firms.

[2] The proportion of employers responding in each category: Exceptionally good, .110; very good, .384; fairly good, .393; neither good nor poor, .082; fairly poor, .021; very poor, .003; exceptionally poor, .006.

[3] The converse hypothesis that location in very large, conflict-laden metropolitan areas decreases the probability of good relationships is not explored because there are no such areas in the State of Wisconsin. In the early 1980's, Milwaukee had a population of about 1 million.

[4] It is recognized that this is a diverse list of factors. They were aggregated because some of them were too infrequent to be entered separately into the regression analysis.

Canadian unions achieve strong gains in membership

MORLEY GUNDERSON AND NOAH M. MELTZ

In sharp contrast to the situation in the United States, union membership has not declined in Canada. In fact, union membership has grown from 2.7 million in 1974 to 3.6 million in 1982, remaining at that level through 1984 and accounting for approximately 40 percent of the nonagricultural paid workforce. Much of the growth since the 1960's has occurred in the public sector, which is heavily unionized; however, unionism has been sustained or has grown across many elements of the private sector. While union membership has been maintained, organized workers have been challenged by the increased use of nonunion labor, especially in construction.

Canadian unionism has become more national than international in scope. That is, there appears to be a pronounced and steady trend away from International (that is, U.S.)-based unionism. The international proportion of total Canadian membership fell from 53.2 percent in 1975 to 39.4 percent in 1985. This reduced share did not result from a decline in international union membership. In fact, the number in 1985 was almost identical with that in 1974. The relative decline of international unions came from the addition of almost 1 million members in national (Canadian-only) unions. A large part of this growth was due to public sector unions which have grown since the 1960's to replace the blue-collar unions as the largest unions in Canada. In addition, some formerly international unions became national unions. The largest single change is the recent formation of the UAW–Canada. This move involves 136,000 members and would lower the proportion of international membership in 1985 from 39.4 percent to 35.7 percent.

The shift from international to national unions was a relatively limited phenomenon prior to the UAW-Canada. A more pronounced development was the increase in autonomy among the Canadian sections of international unions. At the time of this writing, the UAW-Canada is being closely observed to see whether it will set a pattern for other inter-

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nationals. The president of the union, Robert White, who is in large part responsible for the formation of the new union, advocates merger with a number of other unions, such as the Steelworkers, to form a large metalworkers federation. The United Steelworkers of America, under its Canadian-born President Lynn Williams, is strongly resisting this development.

A final point concerning international unions relates to the Canadian Federation of Labour, an organization formed in 1982 of international unions in the building trades. These unions left the Canadian Labour Congress following a jurisdictional dispute with construction unions being certified by the Quebec provincial affiliate of the CLC. To date, there has not been a major move by the CLC to establish rival construction unions outside of Quebec.

Changes in legislation

The legal subsystem has been identified as an important factor in the growth of union membership in Canada.[1] In the case of Canada, the responsibility for labor relations rests with the provinces. Fewer than 10 percent of workers are covered by Federal legislation. Prior to the period of time under consideration, three jurisdictions granted their public employees the right to organize and strike: Saskatchewan in 1944; Quebec in 1964; and the Federal government in 1967. In 1973, four more provinces passed similar legislation. In 1975, schoolteachers in Ontario were given the right to strike; in fact, full-time teachers were required to belong to one of the various teachers' associations.

Other legislation has also provided protection for unions, including the anti-strikebreaking law in Quebec and the anti-professional strikebreakers law in Ontario. Several jurisdictions have introduced provisions to provide for the arbitration of first agreements when there is an element of bad-faith bargaining (British Columbia, Manitoba, Quebec, and the Federal jurisdiction). British Columbia, Saskatchewan, Manitoba, Ontario, and Quebec provide for the imposition of compulsory dues checkoff for union members and nonunion workers. A boost for unions was also given by the provision in all labor codes (except Nova Scotia) for certification without a representation vote if a majority of the bargaining unit are members of the union. This is in sharp contrast to the United States, where a certification election is required after the union application for certification.

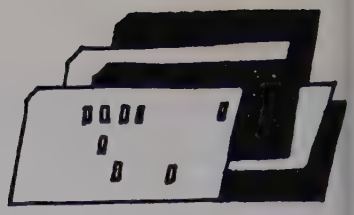
Strong enforcement of labor legislation has also tended to favor unions. Two cases, in which unfair practices by companies resulted in large monetary settlements and changes in legislation, were seen as a warning to companies which might be tempted to violate the legislation. This again is in sharp contrast to the United States, where the National Labor Relations Board has been reluctant to apply remedial measures against employers who violate the requirement to bargain in good faith, thereby leading to fewer certifications and fewer negotiations of a first contract.[2] □

FOOTNOTES

[1] Noah M. Meltz, "Labor Movements in Canada and the United States," in Thomas Kochan, ed., *Challenges and Choices Facing American Labor* (Cambridge, MA, MIT Press, 1985); and the studies by Paul Weiler, "Promises to Keep: Securing Workers' Rights to Self-Organization Under the NLRA," *Harvard Law Review*, June 1983, pp. 1769–827, and Joseph B. Rose and Gary N. Chaison, "The State of the Unions: United States and Canada," *Journal of Labour Research*, Winter 1985, pp. 97–112.

[2] Craig Riddell, "Canadian Labour Relations: An Overview," in Craig Riddell, ed., *Canadian Labour Relations* (Toronto, University of Toronto Press, 1985).

Research Summaries



Distribution of consumption examined using aggregate expenditure shares

KIRK KANEER

What proportion of aggregate expenditures for food in the U.S. economy is made by lower income groups, and what proportion by the highest? How much of total fuel and utilities is purchased by urban residents of the Northeast region? The answers to these and similar questions about the distribution of consumption among diverse population groups can have important implications for social and economic policy or for organizational marketing strategies.

This report presents estimates of aggregate expenditure shares,[1] developed from the Bureau's ongoing Consumer Expenditure Survey, that can help to clarify such issues. It is one of a series of reports which focuses on alternative ways of examining the expenditure survey data and presenting previously unpublished results.

'Expenditure share' defined

Mathematically, an aggregate expenditure share (s_i) is defined as:

$$(\overline{X}_{ij})(f_j)/(\overline{X}_i)(N)$$

where $\overline{X}_{ij}$ is the average expenditure of population group j for item i; f_j is the number of consumer units in group j; $\overline{X}_i$ is the "all consumer units" average expenditure for item i; and N is the number of consumer units in the total population. For purposes of the expenditure survey, a consumer unit is defined as a group of persons living together who pool their income to make joint expenditure decisions, such as a family or independent single people.[2] Each consumer unit has a householder or "reference" person; this person is the first member mentioned by the survey respondent when asked to list the members of the unit starting "with the name of the person or one of the persons who owns or rents the home." It is with respect to this person that consumer units are classified.

Some examples based on actual expenditure survey data serve to illustrate the calculation and proper interpretation of aggregate expenditure shares. Suppose one wants to determine how much of the aggregate expenditure for food was made by consumer units with householders age 65 or over in 1982–83. Based on survey data, there were 13.8 million such consumer units in that period, and their mean annual food expenditures were $2,288. The aggregate expenditure for food by this group was $31.6 billion (13.8 million times $2,288). There were 71.6 million consumer units in the urban population[3] with a mean food expenditure of $3,137; thus, the aggregate food expenditure for all consumer units was $224.6 billion. The aggregate expenditure share for food purchased by consumer units in the 65-and-over age group was 14.1 percent ($31.6 billion/$224.6 billion), while their population share was 19.3 percent (13.8 million/71.6 million).

Two factors influence a group's aggregate expenditure share: 1) the group's mean expenditure for the item, and 2) the number of consumer units in the group. Two groups could have the same aggregate expenditure share but for different reasons. For example, the under-25 and the 65-and-over age groups had about the same aggregate expenditure shares for entertainment in 1982–83, although the group under 25 spent one and a half times as much per consumer unit as those in the older group. However, the younger group had only about half as many units as the 65-and-over group, and thus the total dollars spent by each group were almost equal.

Aggregate expenditure shares are to be distinguished from shares of each consumer unit's budget spent for various expenditure items (budget shares). A given group could spend a large proportion of their total expenditures for a particular item, and yet have a relatively lower aggregate expenditure share. A case in point is the transportation expenditures of the under-25 age group. Their mean transportation expenditure of $2,623 per consumer unit in 1982–83 was 22.6 percent of their total annual expenditures. Yet their share of aggregate transportation expenditures was only 6.9 percent because their mean transportation expenditure was below the all-consumer-unit average.

Highlights

Aggregate expenditure shares from the interview portion of the 1982–83 expenditure survey (see "Notes on the data")

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Table 1. Distribution of annual aggregate expenditures of urban consumer units by quintile of before-tax income, 1982–83

[Aggregates in millions of dollars, unless otherwise indicated]

Item	Aggregate[1]	Quintiles of income				
		Lowest 20 percent	Second 20 percent	Third 20 percent	Fourth 20 percent	Highest 20 percent
Number of consumer units (in thousands)	61,763	12,328	12,321	12,373	12,337	12,403
Percent distribution of consumer units	100.0	20.0	20.0	20.0	20.0	20.0
		Percent of aggregate				
Total expenditures (in millions)	$1,172,323	8.8	12.8	17.7	23.6	37.2
Food	190,415	11.3	13.1	18.7	23.4	31.5
Alcoholic beverages	17,725	9.3	13.6	19.1	25.0	32.7
Housing	354,334	10.4	13.9	17.6	22.5	35.7
Shelter	200,606	10.6	13.5	17.5	22.4	36.8
Owned dwellings	116,670	6.1	8.8	14.8	23.6	47.4
Rented dwellings	66,086	19.2	23.3	24.8	20.8	11.9
Other lodging	17,849	8.3	8.3	12.8	20.3	50.4
Fuels, utilities, and public services	90,112	12.3	16.7	19.1	22.8	29.1
Household operations	16,614	9.2	11.4	14.7	21.7	43.1
Housefurnishings and equipment	47,001	5.9	10.9	16.2	23.0	44.8
Apparel and services	63,554	8.3	11.9	16.9	22.8	40.1
Transportation	228,708	6.6	12.2	18.7	24.8	37.7
Vehicles	85,418	5.1	10.2	18.0	24.7	42.0
Gasoline and motor oil	65,468	8.1	14.4	20.1	25.5	32.1
Other vehicle expenses	64,048	6.6	12.3	18.8	25.5	36.8
Public transportation	13,773	9.4	13.3	15.8	19.9	41.5
Health care	50,707	12.5	19.6	20.1	21.5	26.3
Entertainment	54,413	6.4	9.7	16.1	25.5	42.2
Personal care	10,623	9.7	14.1	17.7	22.9	35.4
Reading	7,843	9.3	13.5	18.3	24.5	34.6
Education	15,873	20.7	9.8	10.6	16.2	42.8
Tobacco	12,846	12.1	17.8	21.3	25.0	23.8
Miscellaneous	17,293	9.3	11.5	17.0	24.4	37.8
Cash contributions	37,243	4.7	9.0	17.7	23.2	45.3
Personal insurance and pensions	110,802	2.1	6.3	14.5	26.1	50.9
Life and other personal insurance	15,378	6.3	9.5	15.5	24.7	44.0
Retirement, pensions, and social security	95,423	1.4	5.8	14.4	26.3	52.0

[1] Aggregates were developed only for those units providing complete reports of income. For this reason, aggregates presented here will be lower than those reported in table 2.

Table 2. Distribution of annual aggregate expenditures of urban consumer units by age of householder and by region, 1982–83

[Aggregates in millions of dollars, unless otherwise indicated]

Item	Aggregate	Age of reference person						Region			
		Under 25	25–34	35–44	45–54	55–64	65 and over	Northeast	Midwest	South	West
Number of consumer units (in thousands)	71,570	7,013	17,210	13,028	10,034	10,436	13,849	16,236	18,666	22,833	13,835
Percent distribution of consumer units	100.0	9.8	24.0	18.2	14.0	14.6	19.4	22.7	26.1	31.9	19.3
		Percent of aggregate						Percent of aggregate			
Total expenditures	$1,352,100	6.0	24.5	23.4	18.3	15.0	12.6	21.7	26.1	31.1	21.1
Food	224,515	5.7	22.6	23.5	18.6	15.5	14.1	23.4	25.7	30.5	20.4
Alcoholic beverages	20,397	11.8	30.0	20.6	15.1	13.3	9.0	24.0	24.3	28.2	23.4
Housing	413,960	5.8	26.6	23.6	16.7	13.5	13.8	22.3	25.8	30.2	21.7
Shelter	233,461	6.5	28.9	24.6	15.7	12.1	12.3	22.1	24.4	28.9	24.7
Owned dwellings	136,913	1.7	25.9	29.4	17.9	13.7	11.5	20.5	27.0	29.5	23.0
Rented dwellings	75,076	15.7	37.5	16.3	10.2	7.5	12.9	23.9	19.5	28.3	28.3
Other lodging	21,471	4.7	17.6	23.4	20.9	17.8	15.5	25.6	24.7	27.0	22.6
Fuels, utilities, and public service	106,567	4.4	21.1	21.9	18.5	16.7	17.4	24.2	28.0	31.9	15.9
Household operations	19,395	4.2	31.9	22.0	11.7	11.2	19.1	19.1	25.0	34.0	21.8
Housefurnishings and equipment	54,536	6.1	26.2	23.1	18.7	14.7	11.2	20.5	28.1	31.4	20.1
Apparel and services	73,717	7.4	25.0	25.2	18.6	14.1	9.7	22.1	25.0	32.0	21.0
Transportation	265,667	6.9	26.2	23.3	18.9	14.4	10.3	20.5	25.8	32.6	21.1
Vehicles	100,341	7.3	29.2	25.1	18.1	11.9	8.4	19.9	26.5	34.7	18.9
Gasoline and motor oil	76,007	6.9	24.3	22.4	19.7	15.7	11.0	19.5	26.9	33.4	20.2
Other vehicle expenses	72,929	6.8	24.7	22.6	19.6	15.5	10.9	20.7	24.5	31.0	23.7
Public transportation	16,317	5.4	24.2	20.2	16.4	18.0	16.0	28.4	21.6	23.8	26.5
Health care	58,830	3.7	16.0	16.7	16.0	18.7	28.9	20.9	24.9	33.5	20.6
Entertainment	62,265	6.5	27.0	27.1	17.3	13.4	8.7	20.3	26.3	29.1	24.4
Personal care	12,596	5.1	20.2	21.0	17.8	17.6	18.3	22.2	25.5	31.4	21.1
Reading	9,089	5.7	22.9	22.1	16.9	16.1	16.2	25.5	27.1	26.9	20.1
Education	19,610	17.5	15.8	22.8	30.2	10.5	3.2	30.1	25.3	25.7	18.8
Tobacco	14,671	6.6	23.0	22.1	19.8	17.4	10.9	23.6	27.2	33.1	15.9
Miscellaneous	19,323	4.3	21.7	23.4	18.5	17.8	14.2	20.4	24.1	28.9	26.5
Cash contributions	41,224	1.7	12.4	22.0	22.5	19.1	22.3	17.3	29.4	34.5	18.9
Personal insurance and pensions	116,301	4.4	25.5	24.7	21.3	19.3	4.8	18.9	28.8	32.3	20.0
Life and other personal insurance	18,465	2.4	19.1	24.9	23.6	18.3	11.6	17.8	31.2	34.6	16.3
Retirement, pensions, and social security	97,836	4.7	26.7	24.7	20.9	19.5	3.5	19.1	28.3	31.9	20.8

Chart 1. Distribution of consumer units, and aggregate expenditure shares for health care, by age of householder, 1982-83

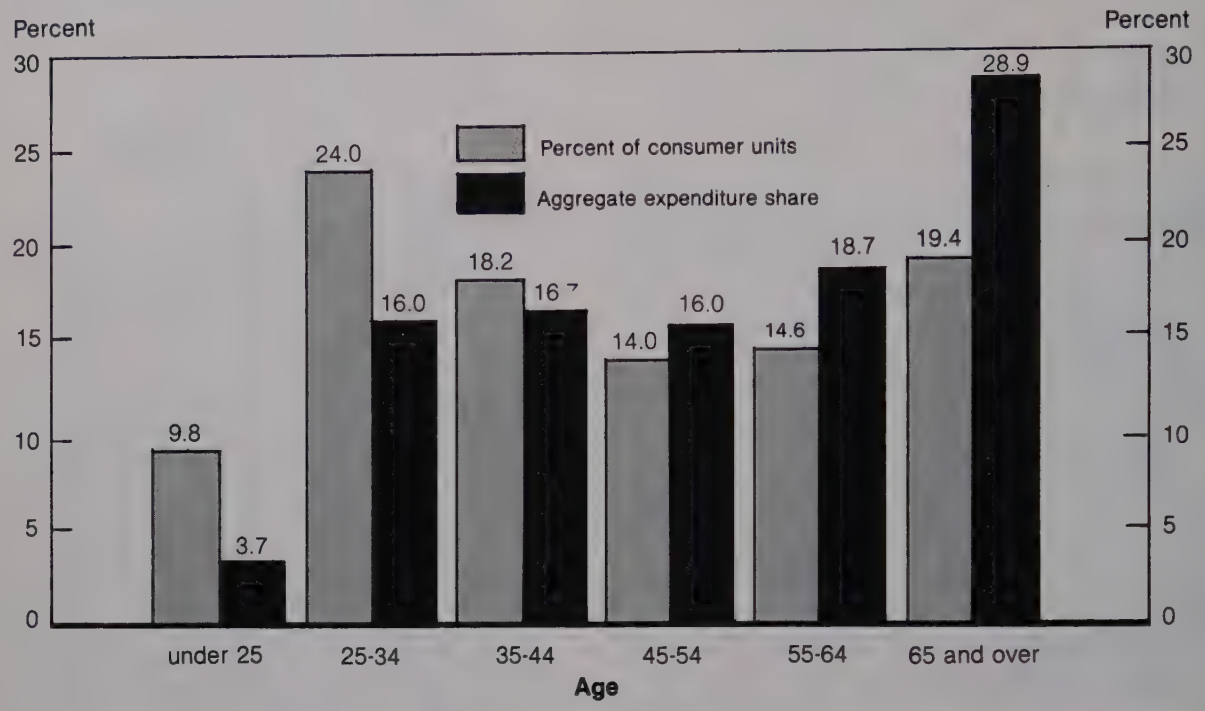
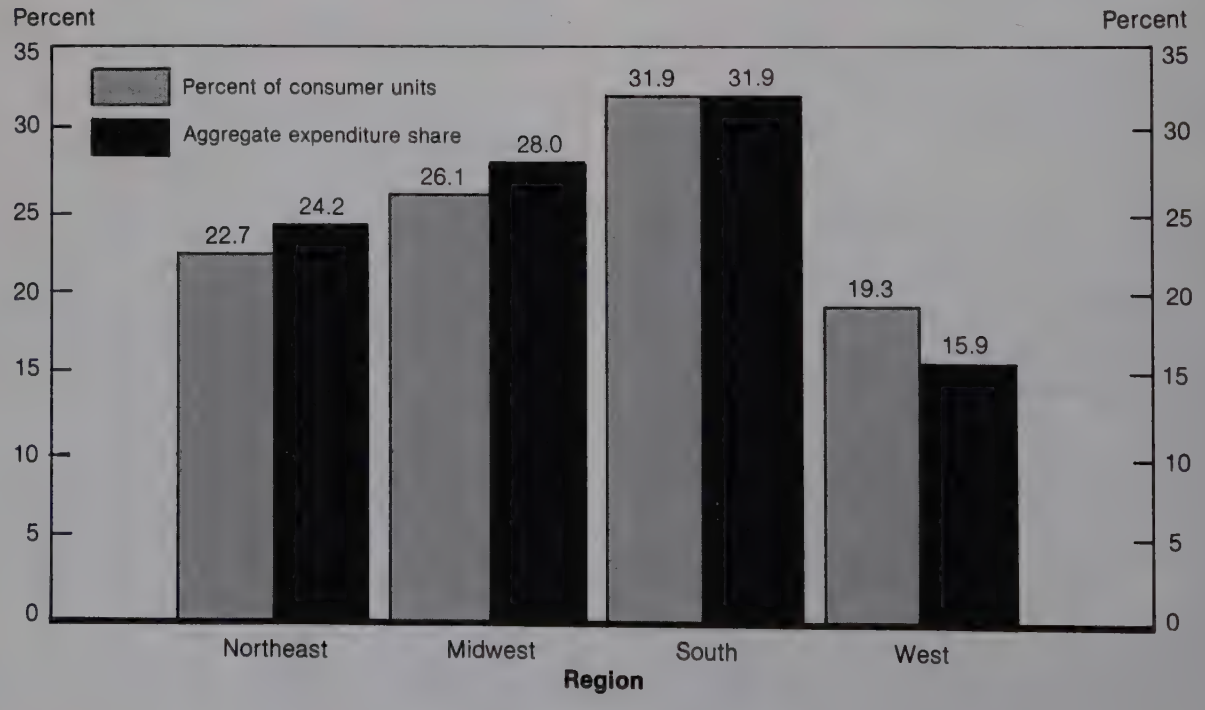


Chart 2. Distribution of consumer units, and aggregate expenditure shares for fuels, utilities, and public services, by region, 1982-83



are presented in tables 1 and 2. Consumer units are classified by income quintile,[4] age of householder, and region. Among the salient findings:

- The lowest income quintile group accounted for 9 percent of total aggregate expenditures, less than half of the proportion of the population they represent. The highest income quintile's aggregate expenditure share for all items was 37 percent, which was almost twice their 20-percent proportion of the population.
- For the lowest quintile, which includes many student consumer units, the only items for which aggregate expenditure share approximated population share were rent and education.
- The aggregate food expenditure shares for the 25-to-34 and 35-to-44 age groups were nearly the same—23 percent and 24 percent, respectively—but the mean annual food expenditure of the older group was more than $1,000 higher.
- More than a third of aggregate expenditures for rented dwellings were made by consumer units in the 25-to-34 age group.
- The group age 45 to 54 had the largest aggregate expenditure share for education, 30 percent, because many in this group are likely to be paying for children's college education.
- The group under age 25 had the lowest aggregate expenditure share for transportation, while the group 25 to 34 had the largest. It is between these age groups that vehicle ownership increased from 70 percent to 87 percent.
- As expected, the 65-and-over group had the largest aggregate expenditure share for health care. (See chart 1.)
- While the aggregate expenditure shares for the regions were generally about the same as their population shares, there were some noteworthy differences. For example, the West's aggregate expenditure share for rented dwellings was 9 percentage points above its population share.
- The West's aggregate expenditure share for fuels, utilities, and public services was 3 percentage points below its population share. This is because the West has a large proportion of renters whose rent payment includes utilities. (See chart 2.)
- Aggregate expenditure shares for public transportation were 7 percentage points above the population share in the West and 8 percentage points below the population share for the South. (Public transportation includes airfares as well as mass transit.)
- The aggregate expenditure share for education in the Northeast was 7 percentage points above the population share, while the South's was 6 percentage points below. The Northeast had the largest proportion of student consumer units.

Notes on the data

Data for the Consumer Expenditure Survey are collected from a nationwide sample of households in the civilian noninstitutional population. The survey is conducted for the Bureau of Labor Statistics by the Bureau of the Census.

The continuing survey represents a major enhancement of a long-established program. The Bureau of Labor Statistics has been gathering information on spending patterns and living costs for nearly a century—since the Federal Government authorized such a survey in 1888–89. For the past half century, the survey has been part of the periodic revision of the Consumer Price Index, next slated for 1987.

The current survey incorporates major methodological improvements that were first used in the 1972–73 survey.

About 5,000 households in each of two independent samples are asked to participate in the survey. Households in one sample are asked to participate in a quarterly interview survey over a 12-month period. (Twenty percent of the sample for the interview survey is replaced each quarter.) The other sample is asked to keep a detailed record of expenses in the form of a diary for 2 consecutive weeks.

The expenditure data should be interpreted with care. The expenditures are averages for a sample of households in the group being analyzed, and as such are subject to both sampling and nonsampling errors. □

FOOTNOTES

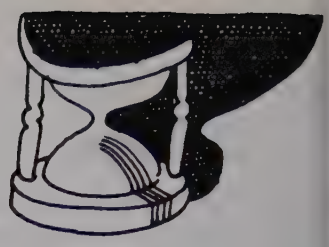
[1] Sometimes referred to as market shares.

[2] See U.S. Department of Labor, *Consumer Expenditure Survey: Interview Survey, 1982–83*, Bulletin 2246 (Bureau of Labor Statistics, February 1986).

[3] The urban population consists of all persons living in Standard Metropolitan Statistical Areas (SMSA's), and in urbanized areas and urban places of 2,500 or more persons outside of SMSA's. "Urban," as defined for this survey, includes the rural populations within SMSA's.

[4] Consumer units are ranked in ascending order of income, and then divided into five equal groups.

Major Agreements Expiring Next Month



This list of selected collective bargaining agreements expiring in May is based on information from the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more. Private industry is arranged in order of Standard Industrial Classification.

Employer and location	Private industry	Labor organization[1]	Number of workers
Homestake Mining Co. (Lead, SD)	Mining	Steelworkers	1,300
Building Trades Employers Association of Westchester and Putnam Counties, N.Y., Inc. (New York)	Construction	Carpenters	1,800
Master Builders Association (Pennsylvania)	Construction	Carpenters	5,000
Kanawha Valley Builders Association (Charleston, WV)	Construction	Laborers	1,400
Independent Employers of Kentucky and Indiana (Interstate)	Construction	Carpenters	1,200
Builders Association of Chicago (Illinois)	Construction	Bricklayers	5,500
Mid-America Regional Bargaining Association (Chicago, IL)	Construction	Carpenters	12,000
Mid-America Regional Bargaining Association and Ceiling and Wall Contractors (Chicago, IL)	Construction	Laborers	7,000
Associated General Contractors, Labor Relations Division and Southwest Michigan Contractors Association (Michigan)	Construction	Carpenters	1,500
Southwest Michigan Contractors Association (Michigan)	Construction	Laborers	1,450
Quad City Builders Association (Illinois and Iowa)	Construction	Laborers	1,100
Associated General Contractors, Oregon–Columbia Chapter (Oregon and Washington)	Construction	Operating Engineers	2,050
Associated General Contractors, Inland Empire Chapter (Interstate)	Construction	Carpenters	2,150
Mid-America Regional Bargaining Association (Chicago, IL)	Construction	Operating Engineers	1,100
Construction Employers of North Central West Virginia (West Virginia)	Construction	Carpenters	1,000
Fox River Valley Contractors Association (Illinois)	Construction	Laborers	1,000
Associated General Contractors and others (Boston, MA)	Construction	Carpenters	3,000
Associated General Contractors (Alabama)	Construction	Various unions	1,950
Associated General Contractors and others (Chicago, IL)	Construction	Laborers	6,000
Michigan Road Builders Association (Michigan)	Construction	Laborers	4,000
Michigan Road Builders Association (Michigan)	Construction	Teamsters (Ind.)	1,000
Associated General Contractors, Idaho Branch (Idaho)	Construction	Various unions	2,050
Associated General Contractors, Oregon–Columbia Chapter (Oregon and Washington)	Construction	Carpenters	3,000
Associated General Contractors, Western and Central Washington (Washington)	Construction	Carpenters	14,000
Associated General Contractors, Inland Empire Chapter (Interstate)	Construction	Laborers	1,000
Associated General Contractors, Seattle and Tacoma Chapters (Washington)	Construction	Laborers	7,000
Associated General Contractors, Inland Empire Chapter (Interstate)	Construction	Operating Engineers	1,000
Associated General Contractors, Seattle and Tacoma Chapters (Washington)	Construction	Operating Engineers	2,500
Underground Contractors Association (Chicago, IL)	Construction	Laborers	1,600
Michigan Road Builders Association (Saginaw, MI)	Construction	Carpenters	1,200
National Electrical Contractors Association (White Plains, NY)	Construction	Electrical Workers (IBEW)	1,300
Sheet Metal Contractors Association (Chicago, IL)	Construction	Sheet Metal Workers	4,000
Associated Steel Erectors (Chicago, IL)	Construction	Iron Workers	1,750
Concrete Contractors Association (Chicago, IL)	Construction	Plasterers and Cement Masons	1,300
Plumbing Contractors Association (Chicago, IL)	Construction	Plumbers	2,500
Mid-America Regional Bargaining Association and Illinois Road Builders (Chicago, IL)	Construction	Teamsters (Ind.)	1,050
Mechanical Contractors Association (Chicago, IL)	Construction	Plumbers	8,000
Painting and Decorating Contractors Association (Michigan)	Construction	Painters	1,300
National Electrical Contractors Association (St. Louis, MO)	Construction	Electrical Workers (IBEW)	2,250
Mechanical Contractors Association, pipefitters (St. Louis, MO)	Construction	Plumbers	1,500

See footnotes at end of table.

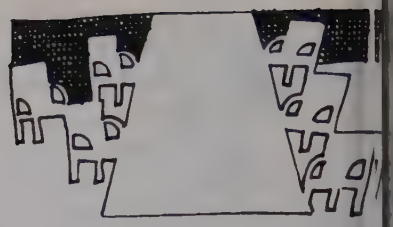
Continued—Major Agreements Expiring Next Month

Employer and location	Private industry	Labor organization[1]	Number of workers
National Electrical Contractors Association (Cincinnati, OH)	Construction	Electrical Workers (IBEW)	1,250
Chicago Roofing Contractors Association (Illinois)	Construction	Roofers	1,600
National Electrical Contractors Association (Los Angeles, CA)	Construction	Electrical Workers (IBEW)	6,000
National Electrical Contractors Association, Orange County (California)	Construction	Electrical Workers (IBEW)	1,200
National Electrical Contractors Association (San Francisco, CA)	Construction	Electrical Workers (IBEW)	2,400
National Electrical Contractors Association (Colorado)	Construction	Electrical Workers (IBEW)	1,600
Sheet Metal and Air Conditioning Contractors Association (Washington)	Construction	Sheet Metal Workers	1,400
Mechanical Contractors Association and Air Conditioning Contractors (Cincinnati, OH)	Construction	Plumbers	1,100
Associated General Contractors, commercial agreement (Columbus, OH)	Construction	Carpenters	2,000
Associated General Contractors, residential agreement (Columbus, OH)	Construction	Carpenters	1,000
California and Hawaiian Sugar Co. (California)	Food products	Seafarers	1,000
Wholesale Bakers Group (California)	Food products	Bakery, Confectionery and Tobacco Workers	1,600
Entenmann's (New York)	Food products	Bakery, Confectionery and Tobacco Workers	1,250
Cone Mills Corp., White Oak plant (Greensboro, NC)	Textiles	Clothing and Textile Workers	2,100
Potlatch Corp. (Idaho)	Lumber	Woodworkers	2,300
Roseburg Lumber Co. (Oregon)	Lumber	Various unions	2,800
Williamette Industries, Inc. (Portland, OR)	Lumber	Various unions	1,400
American Forest Products (California)	Lumber	Various unions	1,800
Western States Wood Products Employers Association (Interstate)	Lumber	Various unions	36,000
Champion International Corp. (Pasadena, TX)	Paper	Paperworkers	1,100
Hudson Pulp and Paper Co. (Palatka, FL)	Paper	Paperworkers	1,500
International Paper Co., multiple mill group (Interstate)	Paper	Paperworkers	6,000
Scott Paper Co., Southern division (Mobile, AL)	Paper	Paperworkers	2,500
Union Camp Corp. (Savannah, GA)	Paper	Paperworkers	1,700
Kimberly–Clark Corp. (Neenah, WI)	Paper	Paperworkers	1,300
American Enka Co. (Enka, NC)	Chemicals	Textile Workers	1,100
Owens–Corning Fiberglas Corp. (Aiken, SC)	Stone, clay, and glass products	Teamsters (Ind.)	1,250
Aluminum Co. of America (Interstate)	Primary metals	Aluminum, Brick and Glass Workers	10,000
Aluminum Co. of America (Interstate)	Primary metals	Steelworkers	10,000
Reynolds Metals Co. (Interstate)	Primary metals	Steelworkers	7,900
Reynolds Metals Co. (Interstate)	Primary metals	Aluminum, Brick and Glass Workers	7,500
Ormet Corp. (Hannibal, OH)	Primary metals	Steelworkers	1,000
Aluminum Co. of America (Interstate)	Primary metals	Various unions	1,200
Sunstrand Corp. (Rockford, IL)	Machinery	Auto Workers	1,000
Leviton Manufacturing Co. (Rhode Island)	Electrical products	Electrical Workers (IBEW)	1,500
Maytag Co. (Iowa)	Electrical products	Auto Workers	1,650
White–Westinghouse Corp. (Interstate)	Electrical products	Electrical Workers (IUE)	2,300
United Airlines, flight attendants (Interstate)[2]	Air transportation	Air Line Pilots	8,500
Boston Edison Co. (Massachusetts)	Utilities	Utility Workers	1,650
Niagara Mohawk Power Corp. (New York)	Utilities	Electrical Workers (IBEW)	8,000
Houston Lighting and Power Co. (Texas)	Utilities	Electrical Workers (IBEW)	4,500
Washington Gas Light Co. (Washington, DC)	Utilities	International Union of Gas Workers (Ind.)	2,000
Panhandle Eastern Pipeline Co. (Kansas City, MO)	Utilities	Oil, Chemical and Atomic Workers	1,400
P and C Supermarkets (New York)	Retail trade	Food and Commercial Workers	3,000
Allied Employers, Inc., grocery (Puget Sound, WA)	Retail trade	Food and Commercial Workers	8,000
Food Employers Council (Las Vegas, NV)	Retail trade	Food and Commercial Workers	3,100
Santa Clara City Hospitality Association (California)	Restaurants	Hotel Employees and Restaurant Employees	4,000
Minneapolis Hotels and Motels (Minnesota)	Hotels	Hotel Employees and Restaurant Employees	2,000
Sacramento and vicinity hotel and motel agreement (California)	Hotels	Hotel Employees and Restaurant Employees	2,600

[1] Affiliated with AFL–CIO except where noted as independent (Ind.).

[2] Information is from newspaper reports.

Developments in Industrial Relations



Meat processing contracts

Recent developments in the meat processing industry centered on the continuing and increasingly bitter strike against Hormel's Austin, MN, plant, but there were more encouraging events elsewhere in the industry, as other United Food and Commercial Workers locals negotiated new agreements.

In Sioux Falls, SD, 2,500 members of the United Food and Commercial Workers Local 304A employed by John Morrell Co. will receive $1 an hour in wage increases over a 3-year contract term, bringing the base or common labor pay rate to $9.75. This was short of the union's $10 an hour goal for its members throughout the industry, but the union still considered it a dramatic rise in view of the company's initial demand for a cut, which was a factor in the 3-month strike that preceded the settlement.

Until 1983, the base rate in the meat processing industry was generally $10.69 an hour for United Food and Commercial Workers. Since then, intensified competition from lower cost nonunion companies, changes in processing and distribution methods, and cuts in consumption of red meat hurt many firms and forced the union to accept a lower pay rate of about $8.25. Following this concession, the union set a goal of restoring the rate to about $10 over the next few years, and has been successful in some recent settlements.

Other terms at Morrell included reduced pay rates for new hires, termination of the profit-sharing plan (the workers were guaranteed a $500 payment in December 1985), and a change in the pension plan permitting workers with 30 years of service to retire at any age (formerly, age 55).

Unlike Morrell, which has been operating at a profit and could guarantee its wage increases, Wilson Foods Corp. has lost money in each of the past 5 years, so the union agreed to a 3-year contract that provides for movement towards the $10 goal to be contingent on profitability. Under the provision, the 2,800 workers will receive annual lump-sum payments ranging from 10 cents per compensated hour if the pretax profit for the year is $2-$4 million, up to 25 cents if the profit is $8 million or more. Unlike most profit-sharing plans, Wilson's calls for the hourly amount used to calculate the lump sum to be incorporated into hourly pay rates after each annual payment and to be paid in subsequent regular weekly paychecks.

In other provisions, the union will be permitted to appoint one person (not an officer or member of the union) to Wilson's board of directors, the company will provide the union with annual certified audits of its finances, and the company president will meet quarterly with union officers to discuss finances and operating strategies that could affect employees at the plants, located in Monmouth, IL, Logansport, IN, Oklahoma City, OK, and Cherokee and Clarinda, IA.

The contract also requires Wilson to give 6 months' notice of plant closings and to guarantee employee work or pay for 1 year after the end of the notice period; continue health insurance for 6 months for employees terminated by the closing of a plant department or larger unit; and provide job relocation assistance and retraining for laid-off employees.

Profit-sharing was a feature of a new contract the United Food and Commercial Workers negotiated with Farmstead Foods plants in Cedar Rapids, IA, and Albert Lea, MN. A company official said that other terms were similar to those at Wilson, which had owned the two plants until 1985, when Wilson sold them to aid its financial condition.

At Farmstead, the profit-sharing rate will range from 10 cents if the annual profit is $1.61–$3.2 million to 25 cents if profits exceed $8.1 million. As at Wilson, an amount equal to the cents per compensated hour will be incorporated into hourly pay rates after each profit-sharing distribution. In a difference from Wilson, the 2,700 Farmstead employees will also receive annual supplemental profit-sharing distributions calculated at 5 to 12.5 cents per hour, depending on the amount by which possible annual profits exceed $3.21 million. The calculation rate for these supplemental distributions will not be incorporated into hourly pay rates.

In addition to job security provisions similar to those at Wilson, the Farmstead contract requires the company to give the union 45 days' notice of any possible sales of assets affecting the jobs of employees in the bargaining unit. The company also stated its "strong desire and objective" that any possible purchasers of the plants retain current employees, assume the current labor agreement, and recog-

"Developments in Industrial Relations" is prepared by George Ruben of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

nize the United Food and Commercial Workers as bargaining agent for the workers.

Elsewhere in the industry, members of United Food and Commercial Workers Local 405 in Goodlettsville, TN, approved a 3-year contract with Oscar Mayer & Co., ending a 4-month strike.

The base rate for production workers was reduced to $10 an hour (from $10.69) matching the level negotiated with other pork processors in 1985. In December 1986, the 575 employees will receive a 25-cent wage increase, which will keep the company at "the high end of the scale for the industry," according to a company representative.

There were reductions in several benefits. Pensions will now be calculated at $17.50 a month for each year of service prior to October 1, 1985. That rate will be reduced to $12 for each year of service during the October 1, 1985-December 31, 1986 period, and then will rise to a $13 rate for later service. Paid vacations also were cut for new employees.

United Steelworkers set bargaining goals

The United Steelworkers are preparing for a heavy round of 1986 bargaining by formulating general goals for the steel, aluminum, metal container, and nonferrous metals industries. The union's Wage Policy Committee said, "the issue of overriding concern to our members must be the safeguarding of employment opportunities, in view of the loss of nearly 500,000 jobs in the industries since 1979."

Specifically, the Committee said bargainers will press for bans on the contracting out of work that can be performed by the union's members and on employers shifting work to their nonunion facilities. Along the same lines, the union also said it will press for more stringent provisions for advance notice and consultation on proposed plant closings.

The union also moved to thwart widespread employer attempts to negotiate concessionary settlements, but admitted that there are "specific situations where the consequences to our members of not accepting concessions are far worse than the consequences of accepting them." Where concessions are necessary, the union said, they must be balanced by assurances that the workers are the beneficiaries rather than the victims of efforts to save a company. Much of this concern was triggered by the 1985 concessionary settlement with Wheeling-Pittsburgh Steel Corp., which gave the union a voice in the plan to save the company, but also led other producers to say that they would seek similar concessions in 1986 to maintain cost parity with Wheeling-Pittsburgh. Other union goals for the four industries include:

- Union surveillance of pension fund investments to prevent the funds from being used for leveraged buyouts of companies.
- Labor-management programs to contain health care cost increases without shifting any of the companies' premium cost to the employees.
- An overhaul of grievance procedures to reduce delays and to penalize employers who repeatedly violate contract provisions.
- Union representatives on company boards "in appropriate circumstances."
- Restrictions on searches, surveillance, and lie-detector tests.

Steelworkers officials from around the Nation have met to decide specific bargaining tactics to be used in the negotiations with steel producers. This meeting was particularly important in this bargaining round because of the end to the 30-year old unified approach to bargaining announced by the companies in 1985. Although the union will now negotiate with the companies individually, indications are that the Steelworkers will attempt to maintain the wage and benefit uniformity that had developed over the years.

In a move to adapt to the new bargaining approach, employees at each company will vote on their proposed agreements. Previously, the 550 local union officers had the sole right to vote on the terms.

Because of the uncertainties of the new bargaining approach, both union and management indicated a desire to start negotiations earlier than in the past, and talks were underway in February at most major companies, where current contracts expire on July 31.

At financially troubled LTV Steel Co., the union agreed to defer until April the final stage of restoration of the temporary pay and benefit cuts workers at its various companies had accepted in 1983 to aid the industry. (Wage restoration was completed in February at the other companies.) In return for the further 3-month delay in restoration, LTV Steel agreed not to implement a scheduled cut in its financing of Supplemental Unemployment Benefits, gave up the right to seek a cut in pensions in the continuing negotiations on a new contract, and agreed not to use nonunion contractors without prior union approval. LTV lost $176 million on operations in the first 9 months of 1985, and wrote off $380 million for closing its large plant in Aliquippa, PA.

Bethlehem Steel Corp. and National Steel Corp. also sought restoration deferrals similar to those at LTV Steel, but the union turned them down, apparently because it did not consider their financial situation to be as critical as that at LTV.

In the copper industry, a coalition of 13 unions headed by the Steelworkers rejected pay cut proposals of the two largest companies. Kennecott Copper Corp. proposed a 4-year contract calling for a one-third cut in compensation, and Newmont Mining Corp. proposed a $6 cut in hourly pay and adoption of a two-tier system of pension and insurance benefits.

Edgar Ball, the Steelworkers' chief copper negotiator, claimed the cuts were not warranted because the companies' problems resulted from the Nation's economic and trade policies, rather than high labor costs.

Ball maintained that Phelps Dodge Corp. was operating at a profit even though compensation at its Arizona operations was $2 an hour less than that at the other companies, which were all operating at a loss. (The company's facilities in Arizona are operating on a nonunion basis after an unsuccessful strike by the unions that began in 1983, when Phelps Dodge refused to accept the industry's pattern settlement.)

Steelworkers contracts in the copper industry generally expire on June 30, 1986. The unions currently represent fewer than 10,000 copper employees, compared with 40,000 a few years ago.

Employee-owned company averts bankruptcy

Employee-owned Hyatt-Clark Industries began moving toward full output of automotive bearings after the employees agreed to concessions, including a 10- to 15-percent wage cut, a slight reduction in benefits, and changes in work assignments and output requirements. According to an official of Auto Worker's Local 736, the contract, scheduled to expire in October 1987, can be reopened earlier if company profits exceed anticipated amounts. Virtually all of the output of the Clark, NJ, plant is sold to General Motors Corp. which sold the plant to the workers in 1981 after 40 years of operation.

The concession settlement was triggered by Hyatt-Clark's inability to pay a note held by a bank. The company then filed for protection under the Federal Bankruptcy Code and a payment schedule was worked out with the bank. At the time, about 90 percent of the 1,100 union-represented workers were on layoff.

Pennsylvania Nurses Association ends strike

The longest strike against the Commonwealth of Pennsylvania since 1975 ended when nurses, pharmacists, and other health care workers represented by the Pennsylvania Nurses Association returned to work at 140 hospitals, health care centers, and prisons. At its peak, the 9-day stoppage involved about 70 percent of the 3,600 workers represented by the Association. A limited number of employees stayed on the job in critical patient-care situations, and managers temporarily filled in for other strikers.

Terms of the new contract were similar to those negotiated by other State employees in 1985. Workers will receive a 3-percent pay increase retroactive to the July 1, 1985, effective date of the 3-year contract, to be followed by additional 3-percent increases on July 1 of 1986 and 1987. According to the Association, the employees averaged $21,800 a year prior to the settlement.

The Association did not win its demand for additional "comparable worth" pay increases, but the State agreed to discussions on the issue. According to the Association, members of the bargaining unit were underpaid relative to State employees in other jobs requiring comparable education, experience, and physical requirements.

The State also agreed to delay and reconsider the downgrading of 600 psychiatric nurses, which would have prevented them from receiving merit pay increases.

Other provisions of the contract eliminated primary and election days as paid holidays and reduced paid sick leave to 13 days a year, from 15.6. For workers hired after July 1, 1985, paid personal leave was reduced to 3 days a year, from 4, and paid vacation time was reduced by 1 week through the seventh year of employment.

Building engineers in New York City settle

Building engineers at 350 New York City office buildings will receive wage increases totaling $90 a week during a 3-year contract between the Reality Advisory Board and the Operating Engineers. The first increase, $32 per week effective January 1, brought the engineers' minimum rate to $564 a week. The other increases are $28.40 on January 1, 1987, and $29.60 on January 1, 1988. For helpers, the initial increase was $25.20, bringing their minimum to $445.20, followed by increases of $22.40 and $23.20 in the second and third years. Chief engineers, mechanics, and other employees not paid according to a set wage scale received a 6-percent initial increase, followed by 5-percent increases in the second and third years.

The accord, covering 2,500 workers, also established a mandatory training program for new employees. They will start at $1.50 an hour below the current minimum helper's rate and, contingent on performance, progress to the minimum in 50-cent steps at 6-month intervals.

The agreement also provided for a 14-cent-an-hour increase (to $1.29) in the employer's financing of health benefits, a 15-cent increase (to 85 cents) in their financing of pensions, and an additional paid holiday, bringing the total to 11 per year.

Unilateral 'wage deferral' contract ruled illegal

In the trucking industry, an employer's attempt to cut costs by unilaterally imposing a wage deferral plan on its union-represented employees was rejected by the Seventh Circuit Court of Appeals. The developments leading to the decision began in 1982, when Manley Truck Lines, Inc., asked the Chicago Truck Drivers Union to incorporate a 12-percent mandatory wage deferral plan into their contract, negotiated earlier in the year. Manley contended the change was necesary to alleviate its financial problems. The union rejected the proposal, but did agree that the company could request individual employees to participate. In 1983, Manley again proposed a mandatory plan with a 15-percent withholding rate. The union again rejected this proposal and agreed that Manley could request individual employees to accept the higher wage deferral. Instead, Manley imposed the 15-percent cut (reduced to 10 percent on July 1, 1983), leading the union to file charges with the National Labor Relations Board contending that Manley's action violated

the National Labor Relations Act's proscription of contract modifications without the consent of both parties.

The union's position was sustained by a NLRB administrative law judge and the Board itself, which then asked the Seventh Circuit Court to enforce its cease and desist order.

In its appeal, Manley contended that the unilateral imposition of wage deferral was necessary to avoid bankruptcy, a shutdown, and loss of jobs, which amounted to an "economic necessity" exception to Section 8(d) of the Act.

In its ruling, the Court of Appeals held that an agency such as the NLRB can interpret provisions of its authorizing statute in one of several permissible ways if the interpretation does not conflict with an expressed intent of the Congress. Concluding, the Court said "the language of 8(d) neither expressly conditions its enforcement upon the continuing economic survival of the employer's business, nor invites such a condition."

Local-negotiated accord rejected by parent union

The National Labor Relations Board upheld the Marine and Shipbuilding Worker's repudiation of a concessionary contract its Local 33 had negotiated with Bethlehem Steel Corp.'s Sparrows Point, MD, shipyard. Union President Arthur Batson said the question of regaining lost compensation for the workers was being handled by the union's attorneys and the parties' permanent umpire also could become involved.

The dispute arose in 1984 when Bethlehem asked for concessions, contending that it was losing work to other yards because its labor costs were too high. Local 33 then entered into negotiations with Bethlehem—with permission of the parent union, according to Local 33 President James Harmon, and without permission, according to Batson. The resulting agreement, negotiated 5 months in advance of the expiration of the existing agreement, called for a pay freeze through August 1987, a $2 an hour cut in pay rates for new employees, and for termination of a provision for automatic cost-of-living pay adjustments in return for adoption of a provision for possible quarterly profit-sharing distributions.

The Marine and Shipbuilding Workers union immediately moved to repudiate the accord and remove Local 33 officers from their jobs, but a Federal judge stayed the actions pending a NLRB decision. In the decision approved by the Board, an administrative law judge held that the union's constitution did not empower Batson to give Local 33 the authority to negotiate independently. Continuing, the judge said that even if the international union had somehow managed to waive the constitutional prohibition, the waiver would have had to have been "clear and unmistakable" and because it was not in writing, there was no evidence that a waiver had been granted.

Beginning in 1959, the union had negotiated national contracts with Bethlehem for as many as eight shipyards. Over the years, yards were closed, leaving only the Sparrows Point facility in 1984. Since the repudiated settlement, Sparrows Point has gained additional production contracts, but the number of employees has dropped to 1,200, from 2,200.

Coal miners end strike

A bitter and sometimes violent 15-month strike against the AT Massey Coal Co. ended in December, but there was continuing controversy over the wage and benefit terms that would apply to the workers. The strike began in October 1984, when Massey refused to accept the wage and benefit terms the United Mine Workers had negotiated with the Bituminous Coal Operators Association (BCOA), which set the pattern for most of the organized firms. Further complicating the situation, Massey insisted that each of its subsidiaries should bargain separately, while the union insisted that Massey should bargain as an entity. This led the union to complain to the National Labor Relations Board that Massey was refusing to bargain.

The issue was resolved in December 1985, when Massey agreed to bargain with the union as an entity. Immediately afterward, UMW President Richard Trumka ordered the miners to return to work, contending that all Massey facilities were covered by the BCOA terms because two of the subsidiaries had earlier accepted the BCOA terms. However, company President Morgan E. Massey said that any returning miners would have to work under terms "different from the ones contained in the 1984 National Bituminous Coal Wage Agreement." He also said that some strikers would not be reinstated because they had "engaged in strike misconduct or violence" and because some mines had been shut down. Another uncertainty involved the status of replacement workers the company had hired during the stoppage. The UMW contended that they must be terminated under NLRB rules governing strikes over a refusal to bargain.

The final outcome of the dispute could be delayed for some time as the UMW filed suit in Federal District Court in an attempt to force Massey to abide by the BCOA terms. Meanwhile, some strikers were returning to work at the mines, located in West Virginia, Kentucky, and Pennsylvania.

Grocery workers back on job

About 21,000 meat department, warehouse, and delivery employees of seven Southern California grocery chains returned to work in December after their unions settled with the Food Employers Council, the employers' association. The first break in the 2-month work stoppage came when the Teamsters settled for the 11,000 warehouse and delivery employees. The meat department workers, who are represented by the Food and Commercial Workers, rejected the employer's initial offer, then narrowly approved the second offer that included a two-tier pay system that was less onerous for employees than one the employers had earlier proposed. Management contended that two-tier pay systems

and other contract changes were necessary to help them compete effectively with lower cost nonunion stores. According to one union member who criticized the two-tier approach, the six UFCW locals in Southern California had lost 50,000 out of 60,000 members over a 6-year period, primarily as a result of new meat processing and packaging methods.

Under the two-tier system, new meat wrappers will start at $5.53 an hour and progress to a maximum of $7.90 as a meat cutter. Current employees, who earn a maximum of $12.16, were not affected.

In another cost reduction change, markets will be required to have a top-rated meat cutter on duty 8 hours a day, instead of the previous 16 hours.

Other terms, which also applied to the Teamsters members, included no wage change in the first contract year, lump-sum payments of up to $500 in September 1986 and up to $1,000 in September 1987, calculated on employee earnings during the preceding 12 months; a 40- to 45-cent wage increase (40 cents for Teamsters members) in September 1987; suspension of the cost-of-living pay adjustment provision; and improvements in pension and insurance benefits, which varied for the two unions.

Amoco and union reach accord

A round of pattern settlements began in the petroleum refining and distribution industry after American Oil Co. and the Oil, Chemical and Atomic Workers negotiated a 2-year contract. The wage and benefit terms were expected to eventually apply to about 46,000 workers covered by 265 contracts with nearly 100 companies. The union's bargaining strength was diminished somewhat by the worldwide oversupply of petroleum, a factor in the loss of 20,000 jobs including about 10,000 covered by OCAW contracts, in the last 5 years. The OCAW also was faced with the problem that walkouts to enforce its demands are not completely effective because the high degree of automation in the industry permits management to maintain more or less normal operation.

The Amoco accord, which covered 4,000 employees, provided for an immediate $1,000 lump-sum payment and a 2-percent wage increase in January 1987, which amounted to 28 cents an hour based on the industry's reported average hourly earnings of $14.16.

Amoco also agreed to increase its financing of health insurance by $7 a month for family coverage and $2 for single coverage in the first year and by $5 and $1.50, respectively, in the second year.

Among the first companies to settle on pattern contracts were Atlantic Richfield Corp. and Chevron Corp.

Machinists settle after strike

In Connecticut, the first strike against the Pratt Whitney Group since 1960 ended when the company and the Machinists union agreed on a 3-year contract. The 2-week stoppage involved operations in Middletown, North Haven, and Southington. Workers at the main plant, in East Hartford, did not participate in the strike but were covered by the wage and benefit terms of the new contract.

The contract provided for two immediate lump-sum payments, one of $300 and the other equal to 3.5 percent of 1985 earnings, or about $700, according to the union. In November 1986, the 15,000 workers will receive another lump-sum payment calculated at 3.5 percent of the prior 12 months' earnings, followed by a 3-percent pay increase in November 1987.

Improvements also were made in the savings plan and in insurance.

Changes were also made in job security provisions, reflecting the union's concern over the reported loss of 8,500 jobs in the past 5 years as a result of technological change and the scheduled elimination of 1,200 jobs during the next 12 months.

One change provides for the company to pay up to 75 percent of the cost of retraining displaced workers. Other changes limit the company's right to farm out work that could be performed by bargaining unit members and require the company to post all available jobs for bidding by qualified workers.

Armstrong contract to improve productivity

In Lancaster, PA, nearly 1,900 employees of Armstrong World Industries Inc. flooring plant were covered by new 1-year agreements. One agreement, for 1,600 production workers, was negotiated by the United Rubber Workers and the other, for machine operators and maintenance employees, was negotiated by the Machinists union.

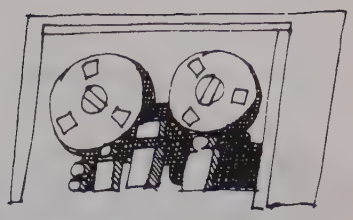
Wage terms included a 5-percent immediate increase, which reportedly averaged 45 cents an hour for production workers and 60 cents for skilled workers. There also were changes in transfer, seniority, attendance, and other provisions "designed to improve plant productivity," according to a company official.

Safeway employees get new contract

In the Kansas City, MO, area, more than 1,200 employees of Safeway Stores Inc. negotiated a 2-year contract that provided for a $500 lump-sum payment effective immediately and a 4-percent wage increase effective July 13, 1986. The wage increase will bring the base rate for food clerks to $9.68 an hour, partly restoring the $2 an hour wage cut the employees took in their prior settlement.

Insurance improvements for the employees, who are represented by the United Food and Commercial Workers, included addition of "well-baby" coverage, annual payments of up to $100 for physical examinations, and extension of coverage to organ and tissue transplant procedures. □

Current Labor Statistics



Schedule of release dates for major BLS statistical series 62

Notes on Current Labor Statistics 63

Comparative indicators

1. Labor market indicators 72
2. Annual and quarterly percent changes in wages, prices, and productivity 73
3. Alternative measures of wage and compensation changes 73

Labor force data

4. Employment status of the total population, data seasonally adjusted 74
5. Employment status of the civilian population, data seasonally adjusted 75
6. Selected employment indicators, data seasonally adjusted 76
7. Selected unemployment indicators, data seasonally adjusted 77
8. Unemployment rates by sex and age, data seasonally adjusted 78
9. Unemployed persons by reason for unemployment, data seasonally adjusted 78
10. Duration of unemployment, data seasonally adjusted 78
11. Unemployment rates of civilian workers, by State 79
12. Employment of workers by State 79
13. Employment of workers by industry, data seasonally adjusted 80
14. Average weekly hours by industry, data seasonally adjusted 81
15. Average hourly earnings by industry 82
16. Average weekly earnings by industry 83
17. Hourly Earnings Index by industry 83
18. Indexes of diffusion: proportion of industries in which employment increased, seasonally adjusted 84
19. Annual data: Employment status of the noninstitutional population 84
20. Annual data: Employment levels by industry 84
21. Annual data: Average hours and earnings levels by industry 85

Labor compensation and collective bargaining data

22. Employment Cost Index, compensation, by occupation and industry group 86
23. Employment Cost Index, wages and salaries, by occupation and industry group 87
24. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size 88
25. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, situations covering 1,000 workers or more 89
26. Average specified compensation and wage adjustments, bargaining situation covering 1,000 workers or more 89
27. Average effective wage adjustments, bargaining situations covering 1,000 workers or more 90
28. Specified compensation and wage adjustments, State and local government bargaining situations covering 1,000 workers or more 90
29. Work stoppages involving 1,000 workers or more 90

Price data

30. Consumer Price Index: U.S. City average, by expenditure category and commodity and service groups 91
31. Consumer Price Index: U.S. City average and local data, all items 94
32. Annual data: Consumer Price Index, all items and major groups 95
33. Producer Price Indexes by stage of processing 96
34. Producer Price Indexes, by durability of product 97
35. Annual data: Producer Price Indexes by stage of processing 97
36. U.S. export price indexes by Standard International Trade Classification 98
37. U.S. import price indexes by Standard International Trade Classification 99
38. U.S. export price indexes by end use category 100
39. U.S. import price indexes by end use category 100
40. U.S. export price indexes by Standard Industrial Classification 100
41. U.S. import price indexes by Standard Industrial Classification 101

Contents—Continued

Productivity data

42. Indexes of productivity, hourly compensation, unit costs, data seasonally adjusted 101
43. Annual indexes of multifactor productivity 102
44. Annual indexes of productivity, hourly compensation, unit costs, and prices 102

International comparisons

45. Unemployment rates in nine countries, data seasonally adjusted 103
46. Annual data: Employment status of civilian working-age population, ten countries 104
47. Annual indexes of productivity and related measures, twelve countries 105

Injury and illness data

48. Annual data: occupational injury illness incidence rates 106

Schedule of release dates for BLS statistical series

Series	Release date	Period coverd	Release date	Period covered	Release date	Period covered	MLR table number
Employment situation	April 4	March	May 2	April	June 6	May	1; 4-21
Producer Price Index	April 11	March	May 16	April	June 13	May	2; 33-35
Consumer Price Index	April 22	March	May 21	April	June 20	May	2, 30-32
Real earnings	April 22	March	May 21	April	June 20	May	14-17
Major collective bargaining settlements	April 25	1st quarter					3; 25-28
Productivity and costs:							
Nonfarm business and manufacturing	April 28	1st quarter					2; 42-44
Nonfinancial corporations			May 29	1st quarter			2; 42-44
Employment Cost Index	April 29	1st quarter					1-3; 22-24

NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force, employment, unemployment, collective bargaining settlements, consumer, producer, and international prices, productivity, international comparisons, and injury and illness statistics. In the notes that follow, the data in each group of tables is briefly described, key definitions are given, notes on the data are set forth, and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years. (Seasonally adjusted data appear in tables 1–3, 4–10, 13, 14, and 18.) Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X–11 ARIMA, which was developed at Statistics Canada as an extension of the standard X–11 method previously used by BLS. A detailed description of the procedure appears in *The X–11 ARIMA Seasonal Adjustment Method* by Estla Bee Dagum (Statistics Canada, Catalogue No. 12–564E, January 1983). The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. However, revisions of historical data continue to be made only at the end of each calendar year.

Seasonally adjusted labor force data in tables 1 and 4–10 were revised in the February 1986 issue of the *Review*, to reflect experience through 1985.

Annual revisions of the seasonally adjusted payroll data shown in tables 13, 14, and 18 were made in July 1985 using the X–11 ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in table 42 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the Hourly Earnings Index in table 17—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of $3 and a current price index number of 150, where 1967 = 100, the hourly rate expressed in 1967 dollars is $2 ($3/150 × 100 = $2). The $2 (or any other resulting values) are described as "real," "constant," or "1967" dollars.

Additional information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule preceding these general notes. More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in *Employment and Earnings*, a monthly publication of the Bureau. More data from the household survey is published in the two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. More data from the establishment survey appears in two data books—*Employment, Hours, and Earnings, United States*, and *Employment, Hours, and Earnings, States and Areas*, and the annual supplements to these data books. More detailed information on employee compensation and collective bargaining settlements is published in the monthly periodical, *Current Wage Developments*. More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report*, and *Producer Prices and Price Indexes*. Detailed data on all of the series in this section are provided in the *Handbook of Labor Statistics*, which is published biennally by the Bureau. BLS bulletins are issued covering productivity, injury and illness, and other data in this section. Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.
r = revised. Generally, this revision reflects the availability of later data but may also reflect other adjustments.
n.e.c. = not elsewhere classified.
n.e.s. = not elsewhere specified.

COMPARATIVE INDICATORS
(Tables 1–3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonagricultural payroll data. The Employment Cost Index (compensation), by major sector and by bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian

nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in: consumer prices for all urban consumers; producer prices by stage of processing; and the overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later sections of these notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods,* Volumes I and II, Bulletins 2134–1 and 2134–2 (Bureau of Labor Statistics, 1982 and 1984, respectively), as well as the additional bulletins, articles, and other publications noted in the separate sections of the *Review*'s "Current Labor Statistics Notes." Historical data for many series are provided in the *Handbook of Labor Statistics, Bulletin 2217* (Bureau of Labor Statistics, 1985). Users may also wish to consult *Major Programs, Bureau of Labor Statistics,* Report 718 (Bureau of Labor Statistics, 1985).

EMPLOYMENT DATA
(Tables 1; 4–21)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 59,500 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all civilians who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. Members of the Armed Forces stationed in the United States are also included in the employed total. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff or waiting to start new jobs within the next 30 days are also counted among the unemployed. The **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **civilian unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. Persons **not in the labor force** are those not classified as employed or unemployed; this group includes persons who are retired, those engaged in their own housework, those not working while attending school, those unable to work because of long-term illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional populaton that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the preceding years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on the various data series appear in the Explanatory Notes of *Employment and Earnings.*

Data in tables 4–10 are seasonally adjusted, based on the seasonal experience through December 1984.

Additional sources of information

For detailed explanations of the data, see *BLS Handbook of Methods,* Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 1, and for additional data, *Handbook of Labor Statistics,* Bulletin 2217 (Bureau of Labor Statistics, 1985). A detailed description of the Current Population Survey as well as additional data are available in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings.* Historical data from 1948 to 1982 are available in *Labor Force Statistics Derived from the Current Population Survey: A Databook,* Vols. I and II, Bulletin 2096 (Bureau of Labor Statistics, 1982).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review,* December 1969, pp. 9–20.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by more than 200,000 establishments representing all industries except agriculture. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday

and sick pay) for any part of the payroll period including the 12th of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 12–16 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for about four-fifths of the total employment on private nonagricutural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earner and Clerical Workers (CPI–W). The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the effects of two types of changes that are unrelated to underlying wage-rate developments: fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes and seasonal factors in the proportion of workers in high-wage and low-wage industries.

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received and are different from standard or scheduled hours. **Overtime hours** represent the portion of gross average weekly hours which were in excess of regular hours and for which overtime premiums were paid.

The Diffusion Index, introduced in the May 1983 *Review*, represents the percent of 185 nonagricultural industries in which employment was rising over the indicated period. One-half of the industries with unchanged employment are counted as rising. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. The diffusion index is useful for measuring the dispersion of economic gains or losses and is also an economic indicator.

Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of May 1985 data, published in the July 1985 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Unadjusted data have been revised back to April 1983; seasonally adjusted data have been revised back to January 1980. These revisions were published in the *Supplement to Employment and Earnings* (Bureau of Labor Statistics, 1985). Unadjusted data from April 1984 forward, and seasonally adjusted data from January 1981 forward are subject to revision in future benchmarks.

Additional sources of information

Detailed data from the establishment survey are published monthly in the BLS periodical, *Employment and Earnings*. Earlier comparable unadjusted and seasonally adjusted data are published in *Employment, Hours, and Earnings, United States, 1909–84*, Bulletin 1312–12 (Bureau of Labor Statistics, 1985) and its annual supplement. For a detailed discussion of the methodology of the survey, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 2. For additional data, see *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9–20.

Unemployment data by State

Description of the series

Data presented in this section are obtained from two major sources—the Current Population Survey (CPS) and the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act and the Public Works and Economic Development Act. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for 11 States—California, Florida, Illinois, Massachusetts, Michigan, New York, New Jersey, North Carolina, Ohio, Pennsylvania, and Texas—are obtained directly from the CPS, because the size of the sample is large enough to meet BLS standards of reliability. Data for the remaining 39 States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates for the 11 States are revised to new population controls. For the remaining States and the District of Columbia, data are benchmarked to annual average CPS levels.

Additional sources of information

Information on the concepts, definitions, and technical procedures used to develop labor force data for States and sub-State areas as well as additional data on sub-States are provided in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*, and the annual report, *Geographic Profile of Employment and Unemployment* (Bureau of Labor Statistics). See also *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 4.

COMPENSATION AND WAGE DATA

(Tables 1–3; 22–29)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index** (ECI) is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor. The index is not seasonally adjusted.

Statistical series on total compensation costs and on wages and salaries are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. Both series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 2,200 private nonfarm establishments providing about 12,000 occupational observations and 700 State and local government establishments providing

3,500 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Fixed employment weights from the 1970 Census of Population are used each quarter to calculate the indexes for civilian, private, and State and local governments. These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1970 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as social security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index data series began in the fourth quarter of 1975, with the quarterly percent change in wages and salaries in the private nonfarm sector. Data on employer costs for employee benefits were included in 1980 to produce, when combined with the wages and salaries series, a measure of the percent change in employer costs for employee total compensation. State and local government units were added to the ECI coverage in 1981, providing a measure of total compensation change in the *civilian* nonfarm economy (excluding Federal employees). Historical indexes (June 1981=100) of the quarterly rates of change are presented in the May issue of the BLS monthly periodical, *Current Wage Developments*.

Additional sources of information

For a more detailed discussion of the Employment Cost Index, see Chapter 11, "The Employment Cost Index," in the *Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 11, and the following *Monthly Labor Review* articles: "Employment Cost Index: a measure of change in the 'price of labor'," July 1975; "How benefits will be incorporated into the Employment Cost Index," January 1978; "Estimation procedures for the Employment Cost Index," May 1982; and "Introducing new weights for the Employment Cost Index," June 1985.

Data on the ECI are also available in BLS quarterly press releases issued in the month following the reference months of March, June, September, and December; and from the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

Collective bargaining settlements

Description of the series

Collective bargaining settlements data provide statistical measures of negotiated adjustments (increases, decreases, and freezes) in compensation (wages and benefits costs) and wages alone, quarterly for private industry and semiannually for State and local government. Compensation measures cover all collective bargaining situations involving 5,000 workers or more and wage measures cover all situations involving 1,000 workers or more. These data, covering private nonagricultural industries and State and local governments, are calculated using information obtained from bargaining agreements on file with the Bureau, parties to the agreements, and secondary sources, such as newspaper accounts. The data are not seasonally adjusted.

Settlement data are measured in terms of future specified adjustments: those that will occur within 12 months after contract ratification—first year—and all adjustments that will occur over the life of the contract expressed as an average annual rate. Adjustments are worker weighted. Both first-year and over-the-life measures exclude wage changes that may occur under cost-of-living clauses that are triggered by future movements in the Consumer Price Index.

Effective wage adjustments measure all adjustments occurring in the reference period, regardless of the settlement date. Included are changes from settlements reached during the period, changes deferred from contracts negotiated in earlier periods, and changes under cost-of-living adjustment clauses. Each wage change is worker weighted. The changes are prorated over all workers under agreements during the reference period yielding the average adjustment.

Definitions

Wage rate changes are calculated by dividing newly negotiated wages by the average hourly earnings, excluding overtime, at the time the agreement is reached. Compensation changes are calculated by dividing the change in the value of the newly negotiated wage and benefit package by existing average hourly compensation, which includes the cost of previously negotiated benefits, legally required social insurance programs, and average hourly earnings.

Compensation changes are calculated by placing a value on the benefit portion of the settlements at the time they are reached. The cost estimates are based on the assumption that conditions existing at the time of settlement (for example, methods of financing pensions or composition of labor force) will remain constant. The data, therefore, are measures of negotiated changes and not of total changes in employer cost.

Contract duration runs from the effective date of the agreement to the expiration date or first wage reopening date, if applicable. Average annual percent changes over the contract term take account of the compounding of successive changes.

Notes on the data

Care should be exercised in comparing the size and nature of the settlements in State and local government with those in the private sector because of differences in bargaining practices and settlement characteristics. A principal difference is the incidence of cost-of-living adjustment (COLA) clauses which cover only about 2 percent of workers under a few local government settlements, but cover 50 percent of workers under private sector settlements. Agreements without COLA's tend to provide larger specified wage increases than those with COLA's. Another difference is that State and local government bargaining frequently excludes pension benefits which are often prescribed by law. In the private sector, in contrast, pensions are typically a bargaining issue.

Additional sources of information

For a more detailed discussion on the series, see of the *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 10. Comprehensive data are published in press releases issued quarterly (in January, April, July, and October) for private industry, and semi-

annually (in February and August) for State and local government. Historical data and additional detailed tabulations for the prior calendar year appear in the April issue of the BLS monthly periodical, *Current Wage Developments*.

Work stoppages

Description of the series

Data on **work stoppages** measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of time lost because of stoppage.

Data are largely from newspaper accounts and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of work days lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate work days lost as a percent of the aggregate number of standard work days in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

Additional sources of information

Data for each calendar year are reported in a BLS press release issued in the first quarter of the following year. Monthly data appear in the BLS monthly periodical, *Current Wage Developments*. Historical data appear in the *BLS Handbook of Labor Statistics*.

Other compensation data

Other BLS data on pay and benefits, not included in the Current Labor Statistics section of the *Monthly Labor Review*, appear in and consist of the following:

Industry Wage Surveys provide data for specific occupations selected to represent an industry's wage structure and the types of activities performed by its workers. The Bureau collects information on weekly work schedules, shift operations and pay differentials, paid holiday and vacation practices, and information on incidence of health, insurance, and retirement plans. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Monthly Labor Review*.

Area Wage Surveys annually provide data for selected office, clerical, professional, technical, maintenance, toolroom, powerplant, material movement, and custodial occupations common to a wide variety of industries in the areas (labor markets) surveyed. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Review*.

The National Survey of Professional, Administrative, Technical, and Clerical Pay provides detailed information annually on salary levels and distributions for the types of jobs mentioned in the survey's title in private employment. Although the definitions of the jobs surveyed reflect the duties and responsibilities in private industry, they are designed to match specific pay grades of Federal white-collar employees under the General Schedule pay system. Accordingly, this survey provides the legally required information for comparing the pay of salaried employees in the Federal civil service with pay in private industry. (See Federal Pay Comparability Act of 1970, 5 U.S.C. 5305.) Data are published in a BLS news release issued in the summer and in a bulletin each fall; summaries and analytical articles also appear in the *Review*.

Employee Benefits Survey provides nationwide information on the incidence and characteristics of employee benefit plans in medium and large establishments in the United States, excluding Alaska and Hawaii. Data are published in an annual BLS news release and bulletin, as well as in special articles appearing in the *Review*.

PRICE DATA
(Tables 2; 30–41)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period (1967 = 100, unless otherwise noted).

Consumer Price Indexes

Description of the series

The **Consumer Price Index** (CPI) is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI–W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all urban consumer index (CPI–U) introduced in 1978 is representative of the 1972–73 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 40 percent represented in the CPI–W. In addition to wage earners and clerical workers, the CPI–U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 24,000 retail establishments and 24,000 tenants in 85 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 28 major urban centers are presented in table 31. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are measured for the CPI–U. A rental equivalence method replaced the

asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of homeownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes.

Additional sources of information

For a discussion of the general method for computing the CPI, see *BLS Handbook of Methods, Volume II, The Consumer Price Index*, Bulletin 2134–2 (Bureau of Labor Statistics, 1984). The recent change in the measurement of homeownership costs is discussed in Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, June 1982, pp. 9–14.

Additional detailed CPI data and regular analyses of consumer price changes are provided in the *CPI Detailed Report*, a monthly publication of the Bureau. Historical data for the overall CPI and for selected groupings may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

Producer price indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 60,000 quotations per month selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The stage of processing structure of Producer Price Indexes organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end-use or material composition.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1976, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

Notes on the data

Beginning with the January 1986 issue, the *Review* is no longer presenting tables of Producer Price Indexes for commodity groupings, special composite groups, or SIC industries. However, these data will continue to be presented in the Bureau's monthly publication *Producer Price Indexes*. Series on the net output of major mining and manufacturing industry groups will appear in the *Review* starting with data for July 1986.

The Bureau has completed the first major stage of its comprehensive overhaul of the theory, methods, and procedures used to construct the Producer Price Indexes. Changes include the replacement of judgment sampling with probability sampling techniques; expansion to systematic coverage of the net output of virtually all industries in the mining and manufacturing sectors; a shift from a commodity to an industry orientation; the exclusion of imports from, and the inclusion of exports in, the survey universe; and the respecification of commodities priced to conform to Bureau of the Census definitions. These and other changes have been phased in gradually since 1978. The result is a system of indexes that is easier to use in conjunction with data on wages, productivity, and employment and other series that are organized in terms of the Standard Industrial Classification and the Census product class designations.

Additional sources of information

For a discussion of the methodology for computing Producer Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 7.

Additional detailed data and analyses of price changes are provided monthly in *Producer Price Indexes*. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

International price indexes

Description of the series

The BLS **International Price Program** produces quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts: it includes corporations, businesses, and individuals but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents. With publication of an all-import index in February 1983 and an all-export index in February 1984, all U.S. merchandise imports and exports now are represented in these indexes. The reference period for the indexes is 1977 = 100, unless otherwise indicated.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected quarterly by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first 2 weeks of the third month of each calendar quarter—March, June, September, and December. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined by the 4- and 5-digit level of detail of the Standard Industrial Trade Classification System (SITC). The calculation of indexes by SITC category facilitates the comparison of U.S. price trends and sector production with similar data for other countries. Detailed indexes are also computed and published on a Standard Industrial Classification (SIC-based) basis, as well as by end-use class.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyeres type. Price relatives are assigned equal importance within each weight category and are then aggregated to the SITC level. The values assigned to each weight category are based on trade value figures compiled

by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1980.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's quarterly questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing basis is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation. An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f. (cost, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges.

Additional sources of information

For a discussion of the general method of computing International Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 8.

Additional detailed data and analyses of international price developments are presented in the Bureau's quarterly publication *U.S. Import and Export Price Indexes* and in occasional *Monthly Labor Review* articles prepared by BLS analysts. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

PRODUCTIVITY DATA
(Tables 2; 42–47)

U. S. productivity and related data

Description of the series

The productivity measures relate real physical output to real input. As such, they encompass a family of measures which include single factor input measures, such as output per unit of labor input (output per hour) or output per unit of capital input, as well as measures of multifactor productivity (output per unit of labor and capital inputs combined). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the value of goods and services in constant prices produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the value of goods and services in constant dollars produced per unit of capital services input.

Multifactor productivity is the ratio output per unit of labor and capital inputs combined. Changes in this measure reflect changes in a number of factors which affect the production process such as changes in technology, shifts in the composition of the labor force, changes in capacity utilization, research and development, skill and efforts of the work force, management, and so forth. Changes in the output per hour measures reflect the impact of these factors as well as the substitution of capital for labor.

Compensation per hour is the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, and the wages, salaries, and supplementary payments for the self-employed (except for nonfinancial corporations in which there are no self-employed)—the sum divided by hours paid for. **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs is the labor compensation costs expended in the production of a unit of output and is derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current dollar value of output and dividing by output. **Unit nonlabor costs** contain all the components of unit nonlabor payments *except* unit profits.

Unit profits include corporate profits and the value of inventory adjustments per unit of output.

Hours of all persons are the total hours paid of payroll workers, self-employed persons, and unpaid family workers.

Capital services is the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Labor and capital inputs combined are derived by combining changes in labor and capital inputs with weights which represent each component's share of total output. The indexes for capital services and combined units of labor and capital are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Output measures for the business sector and the nonfarm businesss sector exclude the constant dollar value of owner-occupied housing, rest of world, households and institutions, and general government output from the constant dollar value of gross national product. The measures are derived from data supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are developed from data of the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in tables 42–44 describe the relationship between output in real terms and the labor time and capital services involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input. Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and efforts of the work force.

Additional sources of information

Descriptions of methodology underlying the measurement of output per hour and multifactor productivity are found in the *BLS Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 13. Historical data for selected industries are provided in the Bureau's *Handbook of Labor Statistics*, 1985, Bulletin 2217.

International comparisons

Description of the series

Comparative measures of labor force, employment, and unemployment (tables 45 and 46) are prepared regularly for the United States, Canada, Australia, Japan, France, Germany, Great Britain, Italy, the Netherlands, and Sweden. Unemployment rates, approximating U.S. concepts, are prepared monthly for most of the countries; the other measures, annually.

The Bureau of Labor Statistics also prepares international comparisons of manufacturing labor productivity and labor costs (table 47) that cover the United States and 11 foreign countries—those listed above plus Belgium and Norway. These measures are limited to trend comparisons; that is, intercountry series of changes over time, rather than level comparisons because reliable international comparisons of the levels of manufacturing are unavailable. The U.S. measures are described in the notes on U.S. productivity measurement; the measures for foreign countries are compiled from various national and international data sources.

Definitions

Output measures are constant value output (value added) from the national accounts of each country, except for those for Japan prior to 1970 and for the Netherlands for 1969 forward, which are indexes of industrial production. The national accounting methods for measuring real output differ considerably among the 12 countries, but the use of different procedures does not, in itself, connote lack of comparability—rather, it reflects differences among countries in the availability and reliability of underlying data series.

Hours and compensation measures refer to all employed persons including the self-employed in the United States and Canada, and to all wage and salary employees in the other countries. *Hours* refer to hours *paid* in the United States, hours *worked* in the other countries. *Compensation (labor costs)* includes not only all payments made directly to employees and employer expenditures for social insurance and private benefit plans, but changes in significant employment or payroll taxes that are not compensation to employees but are labor costs to employers (France, Sweden, and the United Kingdom). Self-employed workers are included in the U.S. and Canadian figures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

The data for the foreign countries in tables 45 and 46 have been adjusted, where necessary, for greater comparability with U.S. definitions of employment and unemployment. The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country. Therefore, the adjusted statistics relate to the civilian population age 16 and over in the United States, France, and Sweden, and from 1973 forward, Great Britain; 15 and over in Canada, Australia, Japan, Germany, and the Netherlands; and 14 and over in Italy. Prior to 1973, the data for Great Britain related to persons age 15 and over. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany.

For most of the countries in table 47, the measures refer to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (beginning 1959), Italy (beginning 1970), and the United Kingdom (beginning 1976) refer to manufacturing and mining less energy-related products. For all countries, manufacturing includes the activities of government enterprises.

In addition, for all countries, preliminary estimates for recent years are generally based on current indicators of manufacturing output, employment and hours, and hourly compensation until national accounts and other statistics used for the long-term measures become available.

Additional sources of information

For further information, see *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix B and Supplements to Appendix B. Additional detail is also found in the *BLS Handbook of Methods*, Bulletin 2134–1, (Bureau of Labor Statistics, 1982), chapter 16. Additional international comparison statistics are available in the *Handbook of Labor Statistics* Bulletin 2217 (Bureau of Labor Statistics, 1985). The most recent statistics are presented and analyzed annually in the *Monthly Labor Review*, typically in the December issue (for the previous year) and in February.

OCCUPATIONAL INJURY AND ILLNESS DATA

(Table 48)

Description of the series

The Annual Survey of Occupational Injuries and Illnesses is designed to collect data on injuries and illnesses based on records which employers in the following industries maintain under the Occupational Safety and Health Act of 1970: agriculture, forestry, and fishing; oil and gas extraction; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. Excluded from the survey are self-employed individuals, farmers with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies.

Because the survey is a Federal–State cooperative program and the data must meet the needs of participating State agencies, an independent sample is selected for each State. The sample is selected to represent all private industries in the States and territories. The sample size for the survey is dependent upon (1) the characteristics for which estimates are needed; (2) the industries for which estimates are desired; (3) the characteristics of the population being sampled; (4) the target reliability of the estimates; and (5) the survey design employed.

While there are many characteristics upon which the sample design could be based, the total recorded case incidence rate is used because it is one of the most important characteristics and the least variable; therefore, it requires the smallest sample size.

The survey is based on stratified random sampling with a Neyman allocation and a ratio estimator. The characteristics used to stratify the establishments are the Standard Industrial Classification (SIC) code and size of employment.

Definitions

Recordable occupational injuries and illnesses are: (1) occupational deaths, regardless of the time between injury and death, or the length of the illness; or (2) nonfatal occupational illnesses; or (3) nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid).

Occupational injury is any injury such as a cut, fracture, sprain, amputation, and so forth, which results from a work accident or from exposure involving a single incident in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday cases are cases which involve days away from work, or days of restricted work activity, or both.

Lost workday cases involving restricted work activity are those cases which result in restricted work activity only.

Lost workdays away from work are the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness.

Lost workdays—restricted work activity are the number of workdays (consecutive or not) on which, because of injury or illness: (1) the employee was assigned to another job on a temporary basis; or (2) the employee worked at a permanent job less than full time; or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

Incidence rates represent the number of injuries and/or illnesses or lost workdays per 100 full-time workers.

Notes on the data

Estimates are made for industries and employment-size classes and for severity classification: fatalities, lost workday cases, and nonfatal cases without lost workdays. Lost workday cases are separated into those where the employee would have worked but could not and those in which work activity was restricted. Estimates of the number of cases and the number of days lost are made for both categories.

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses, or lost workdays, per 100 full-time employees. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Only a few of the available measures are included in the *Handbook of Labor Statistics*. Full detail is presented in the annual bulletin, *Occupational Injuries and Illnesses in the United States, by Industry*.

Comparable data for individual States are available from the BLS Office of Occupational Safety and Health Statistics.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration, respectively. Data from these organizations are included in BLS and State publications. Federal employee experience is compiled and published by the Occupational Safety and Health Administration. Data on State and local government employees are collected by about half of the States and territories; these data are not compiled nationally.

Additional sources of information

The Supplementary Data System provides detailed information describing various factors associated with work-related injuries and illnesses. These data are obtained from information reported by *employers* to State workers' compensation agencies. The Work Injury Report program examines selected types of accidents through an employee survey which focuses on the circumstances surrounding the injury. These data are not included in the *Handbook of Labor Statistics* but are available from the BLS Office of Occupational Safety and Health Statistics.

The definitions of occupational injuries and illnesses and lost workdays are from *Recordkeeping Requirements under the Occupational Safety and Health Act of 1970*. For additional data, see *Occupational Injuries and Illnesses in the United States, by Industry*, annual Bureau of Labor Statistics bulletin; BLS *Handbook of Methods*, Bulletin 2134–1 (Bureau of Labor Statistics, 1982), chapter 17; *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985), pp. 411–14; annual reports in the *Monthly Labor Review*; and annual U.S. Department of Labor press releases.

1. Labor market indicators

Selected indicators	1984	1985	1984				1985			
			I	II	III	IV	I	II	III	IV
Employment data										
Employment status of the civilian noninstitutionalized population (household survey)[1]										
Labor force participation rate	64.4	64.8	64.1	64.5	64.4	64.5	64.8	64.7	64.7	
Employment-population ratio	59.5	60.1	59.0	59.6	59.7	59.8	60.1	60.0	60.1	
Unemployment rate	7.5	7.2	7.9	7.5	7.4	7.2	7.3	7.3	7.2	
Men	7.4	7.0	7.9	7.4	7.3	7.1	7.1	7.1	7.0	
16 to 24 years	14.4	14.1	15.0	14.3	14.5	13.8	14.1	14.2	14.0	
25 years and over	5.7	5.3	6.1	5.7	5.5	5.4	5.4	5.4	5.3	
Women	7.6	7.4	7.9	7.6	7.6	7.5	7.6	7.5	7.4	
16 to 24 years	13.3	13.0	13.9	13.5	13.1	12.9	13.1	13.0	12.7	
25 years and over	6.0	5.9	6.1	5.9	6.0	5.9	6.0	6.0	5.9	
Unemployment rate, 15 weeks and over	2.4	2.0	2.7	2.5	2.3	2.1	2.0	2.0	2.0	
Employment, nonagricultural (payroll data):[1],										
Total	94,461	97,699	93,035	94,013	94,915	95,849	96,840	97,338	97,967	98
Private sector	78,477	81,404	77,153	78,082	78,898	79,745	80,522	81,143	81,588	82
Goods-producing	24,730	25,057	24,402	24,680	24,861	24,973	25,077	25,055	24,986	25
Manufacturing	19,412	19,426	19,182	19,394	19,509	19,564	19,564	19,430	19,331	19
Service-producing	69,731	72,643	68,633	69,333	70,055	70,876	71,563	72,283	72,981	73
Average hours:										
Private sector	35.3	35.1	35.3	35.3	35.3	35.2	35.1	35.1	35.1	
Manufacturing	40.7	40.5	40.9	40.8	40.5	40.5	40.4	40.3	40.5	
Overtime	3.4	3.3	3.5	3.5	3.3	3.4	3.3	3.2	3.3	
Employment Cost Index										
Percent change in the ECI, compensation:[2]										
All workers (excluding farm, household, and Federal workers)	–	–	1.7	.8	1.3	1.2	1.3	.7	1.6	
Private industry workers	–	–	1.7	.9	.8	1.3	1.2	.8	1.3	
Goods-producing[3]	–	–	1.6	.9	.9	1.1	1.5	.7	.6	
Servicing-producing[3]	–	–	1.9	1.0	.7	1.4	1.0	1.0	1.8	
State and local government workers	–	–	1.6	.4	3.5	1.0	1.2	.2	3.4	
Workers by bargaining status (private industry)										
Union	–	–	1.5	.9	.7	1.1	.7	.6	.8	
Nonunion	–	–	1.8	1.0	.9	1.3	1.6	1.0	1.4	

[1] Quarterly data seasonally adjusted.

[2] Annual changes are December-to-December change. Quarterly changes calculated using the last month of each quarter.

[3] Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include all other private sector industries.

– Data not available.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1984	1985	1984				1985			
			I	II	III	IV	I	II	III	IV
Compensation data: [1, 2]										
Employment Cost Index--Compensation (wages, salaries, benefits)										
Civilian nonfarm	–	–	1.7	0.8	1.3	1.2	1.3	0.7	1.6	0.6
Private nonfarm	–	–	1.7	.9	.8	1.3	1.2	.8	1.3	.6
Employment Cost Index--Wages and Salaries										
Civilian nonfarm	–	–	1.2	.8	1.3	1.2	1.2	.9	1.7	.6
Private nonfarm	–	–	1.2	.9	.8	1.2	1.2	1.1	1.3	.6
Price data[1]										
Consumer Price Index (All urban consumers): All items	3.8	4.0	1.3	1.1	1.2	.3	1.0	1.1	.7	.9
Producer Price Index										
Finished goods	1.7	1.8	1.5	-.2	-.5	.9	.0	.7	-1.4	2.5
Finished consumer goods	1.6	1.5	1.7	-.3	-.5	.8	-.3	.7	-1.4	2.5
Capital equipment	1.8	2.7	.7	.5	-.5	1.1	1.3	.4	-1.4	2.4
Intermediate materials, supplies, components	1.3	-.3	1.3	.6	-.4	-.1	-.4	.2	-.5	.3
Crude materials	-1.2	-5.5	5.4	-3.6	-2.9	.1	-4.0	-3.8	-7.8	9.9
U.S. Export Price Index	–	–	–	–	–	–	–	–	–	–
U.S. Import Price Index	–	–	–	–	–	–	–	–	–	–
Productivity data [1]										
Output per hour of all persons:										
Business sector	2.1	.2	2.6	2.0	2.2	1.3	.3	-.1	.5	.1
Nonfarm business sector	1.6	-.2	2.6	1.7	1.2	.8	.1	-.4	.1	-.4
Nonfinancial corporations [3]	2.1	-.1	3.5	2.9	1.5	.8	-.3	-.9	.4	–

[1] Annual changes are December-to-December change. Quarterly changes are calculated using the last month of each quarter. Compensation and Price data are not seasonally adjusted and the price data are not compounded. Productivity data are seasonally adjusted.

[2] Excludes Federal and private household workers.

[3] Output per hour of all employees.

– Data not available.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ended in--					
	1984		1985				1984		1985			
	III	IV	I	II	III	IV	III	IV	I	II	III	IV
Average hourly compensation:[1]												
All persons, business sector	–	–	–	–	–	–	–	–	–	–	–	–
All employees, nonfarm business sector	–	–	–	–	–	–	–	–	–	–	–	–
Hourly earnings Index:[2]												
All private nonfarm	–	–	–	–	–	–	–	–	–	–	–	–
Employment Cost Index--compensation:												
Civilian nonfarm [3]	1.3	1.2	1.3	0.7	1.6	0.6	5.1	5.2	4.8	4.6	4.9	4.3
Private nonfarm	.8	1.3	1.2	.8	1.3	.6	4.8	4.9	4.4	4.2	4.7	3.9
Union	.7	1.1	.7	.6	.8	.5	4.1	4.3	3.5	3.1	3.2	2.6
Nonunion	.9	1.3	1.6	1.0	1.4	.6	5.2	5.2	4.9	4.9	5.4	4.6
State and local governments	3.5	1.0	1.2	.2	3.4	.7	6.6	6.6	6.3	6.1	6.0	5.7
Employment Cost Index--wages and salaries:												
Civilian nonfarm[3]	1.3	1.2	1.2	.9	1.7	.6	4.3	4.5	4.4	4.5	5.0	4.4
Private nonfarm	.8	1.2	1.2	1.1	1.3	.6	4.1	4.1	4.1	4.3	4.8	4.1
Union	.7	.9	.7	1.1	.9	.5	3.3	3.4	3.0	3.4	3.6	3.1
Nonunion	.8	1.3	1.4	1.1	1.5	.6	4.5	4.5	4.6	4.8	5.4	4.6
State and local governments	3.4	.8	1.0	.2	3.5	.8	5.8	5.9	5.6	5.5	5.6	5.6
Total effective wage adjustments[4]	1.2	.7	.8	.8	1.2	.5	4.2	3.7	3.6	3.5	3.5	3.3
From current settlements	.2	.3	.1	.2	.2	.2	1.0	.8	.7	.9	.9	.7
From prior settlements	.7	.2	.6	.5	.6	.2	2.1	2.0	2.2	1.9	1.8	1.8
From cost-of-living provision	.3	.2	.1	.1	.4	.1	1.2	.9	.7	.7	.8	.8
Negotiated wage adjustments from settlements[4]												
First-year adjustments	2.1	2.3	3.3	2.5	2.0	2.1	3.2	2.4	2.4	2.4	2.4	2.3
Annual rate over life of contract	2.6	1.5	3.2	2.8	3.1	1.9	2.8	2.4	2.3	2.4	2.5	2.7
Negotiated wage and benefit adjustments from settlements:[5]												
First-year adjustment	2.7	3.7	3.6	3.5	2.0	2.0	4.2	3.6	3.4	3.5	3.1	–
Annual rate over life of contract	3.1	2.0	2.7	3.4	3.0	1.4	3.2	2.8	2.6	2.7	2.7	2.8

[1] Seasonally adjusted.

[2] Production or nonsupervisory workers.

[3] Excludes Federal and household workers.

[4] Limited to major collective bargaining units of 1,000 workers or more. The most recent data are preliminary.

[5] Limited to major collective bargaining units of 5,000 workers or more. The most recent data are preliminary.

-- Data not available.

4. Employment status of the total population, by sex, monthly data seasonally adjusted

(Number in thousands)

Employment status	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Fe
TOTAL															
Noninstitutional population [1, 2]	178,080	179,912	179,219	179,368	179,501	179,649	179,798	179,967	180,131	180,304	180,470	180,642	180,810	181,361	181
Labor force[2]	115,241	117,167	116,685	117,036	116,958	117,044	116,726	116,976	117,069	117,522	117,814	117,832	117,927	118,477	118
Participation rate [3]	64.7	65.1	65.1	65.2	65.2	65.2	64.9	65.0	65.0	65.2	65.3	65.2	65.2	65.3	
Total employed [2]	106,702	108,856	108,290	108,652	108,574	108,644	108,303	108,575	108,936	109,251	109,513	109,671	109,904	110,646	110
Employment-population ratio [4]	59.9	60.5	60.4	60.6	60.5	60.5	60.2	60.3	60.5	60.6	60.7	60.7	60.8	61.0	
Resident Armed Forces [1]	1,697	1,706	1,703	1,701	1,702	1,705	1,702	1,704	1,726	1,732	1,700	1,702	1,698	1,691	1
Civilian employed	105,005	107,150	106,587	106,951	106,872	106,939	106,601	106,871	107,210	107,519	107,813	107,969	108,206	108,955	108
Agriculture	3,321	3,179	3,325	3,314	3,353	3,284	3,140	3,120	3,095	3,017	3,058	3,070	3,151	3,299	3
Nonagricultural industries	101,685	103,971	103,262	103,637	103,519	103,655	103,461	103,751	104,115	104,502	104,755	104,899	105,055	105,655	105
Unemployed	8,539	8,312	8,395	8,384	8,384	8,400	8,423	8,401	8,133	8,271	8,301	8,161	8,023	7,831	8
Unemployment rate [5]	7.4	7.1	7.2	7.2	7.2	7.2	7.2	7.2	6.9	7.0	7.0	6.9	6.8	6.6	
Not in labor force	62,839	62,744	62,534	62,332	62,543	62,605	63,072	62,991	63,062	62,782	62,656	62,810	62,883	62,885	62
Men, 16 years and over															
Noninstitutional population [1, 2]	85,156	86,025	85,692	85,764	85,827	85,898	85,970	86,052	86,132	86,217	86,293	86,374	86,459	86,882	86
Labor force[2]	65,386	65,967	65,782	65,898	65,929	66,012	65,808	65,884	65,945	66,074	66,227	66,176	66,139	66,679	66
Participation rate [3]	76.8	76.7	76.8	76.8	76.8	76.8	76.5	76.6	76.6	76.6	76.7	76.6	76.5	76.7	
Total employed [2]	60,642	61,447	61,207	61,381	61,373	61,498	61,175	61,273	61,510	61,629	61,656	61,731	61,793	62,458	62
Employment-population ratio [4]	71.2	71.4	71.4	71.6	71.5	71.6	71.2	71.2	71.4	71.5	71.4	71.5	71.5	71.9	
Resident Armed Forces [1]	1,551	1,556	1,554	1,553	1,553	1,556	1,552	1,554	1,574	1,580	1,551	1,552	1,549	1,539	1
Civilian employed	59,091	59,891	59,653	59,828	59,820	59,942	59,623	59,719	59,936	60,049	60,105	60,179	60,244	60,919	60
Unemployed	4,744	4,521	4,575	4,517	4,556	4,514	4,633	4,611	4,435	4,445	4,571	4,445	4,346	4,221	4
Unemployment rate [5]	7.3	6.9	7.0	6.9	6.9	6.8	7.0	7.0	6.7	6.7	6.9	6.7	6.6	6.3	
Women, 16 years and over															
Noninstitutional population [1, 2]	92,924	93,886	93,527	93,603	93,674	93,751	93,828	93,915	93,999	94,087	94,177	94,266	94,351	94,479	94
Labor force[2]	49,855	51,200	50,903	51,138	51,029	51,032	50,918	51,092	51,124	51,448	51,587	51,655	51,788	51,797	51
Participation rate [3]	53.7	54.5	54.4	54.6	54.5	54.4	54.3	54.4	54.4	54.7	54.8	54.8	54.9	54.8	
Total employed[2]	46,061	47,409	47,083	47,271	47,201	47,146	47,128	47,302	47,426	47,622	47,857	47,939	48,111	48,187	48
Employment-population ratio [4]	49.6	50.5	50.3	50.5	50.4	50.3	50.2	50.4	50.5	50.6	50.8	50.9	51.0	51.0	
Resident Armed Forces [1]	146	150	149	148	149	149	150	150	152	152	149	149	149	152	
Civilian employed	45,915	47,259	46,934	47,123	47,052	46,997	46,978	47,152	47,274	47,470	47,708	47,790	47,962	48,035	47
Unemployed	3,794	3,791	3,820	3,867	3,828	3,886	3,790	3,790	3,698	3,826	3,730	3,716	3,677	3,610	3
Unemployment rate [5]	7.6	7.4	7.5	7.6	7.5	7.6	7.4	7.4	7.2	7.4	7.2	7.2	7.1	7.0	

[1] The population and Armed Forces figures are not adjusted for seasonal variation.
[2] Includes members of the Armed Forces stationed in the United States.
[3] Labor force as a percent of the noninstitutional population.
[4] Total employed as a percent of the noninstitutional population.
[5] Unemployment as a percent of the labor force (including the resident Arm Forces).

Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally usted

bers in thousands)

Employment status	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
AL															
ian noninstitutional population[1]	176,383	178,206	177,516	177,667	177,799	177,944	178,096	178,263	178,405	178,572	178,770	178,940	179,112	179,670	179,821
ilian labor force	113,544	115,461	114,982	115,335	115,256	115,339	115,024	115,272	115,343	115,790	116,114	116,130	116,229	116,786	117,088
Participation rate	64.4	64.8	64.8	64.9	64.8	64.8	64.6	64.7	64.7	64.8	65.0	64.9	64.9	65.0	65.1
mployed	105,005	107,150	106,587	106,951	106,872	106,939	106,601	106,871	107,210	107,519	107,813	107,969	108,206	108,955	108,561
Employment-population ratio[2]	59.5	60.1	60.0	60.2	60.1	60.1	59.9	60.0	60.1	60.2	60.3	60.3	60.4	60.6	60.4
nemployed	8,539	8,312	8,395	8,384	8,384	8,400	8,423	8,401	8,133	8,271	8,301	8,161	8,023	7,831	8,527
Unemployment rate	7.5	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.0	6.9	6.7	7.3
t in labor force	62,839	62,744	62,534	62,332	62,543	62,605	63,072	62,991	63,062	62,782	62,656	62,810	62,883	62,885	62,733
, 20 years and over															
ian noninstitutional population[1]	76,219	77,195	76,829	76,904	76,988	77,068	77,135	77,243	77,306	77,389	77,498	77,566	77,651	78,101	78,171
vilian labor force	59,701	60,277	60,037	60,154	60,165	60,240	60,246	60,158	60,269	60,407	60,526	60,553	60,548	61,212	61,183
Participation rate	78.3	78.1	78.1	78.2	78.1	78.2	78.1	77.9	78.0	78.1	78.1	78.1	78.0	78.4	78.3
Employed	55,769	56,562	56,274	56,411	56,390	56,544	56,384	56,403	56,636	56,751	56,849	56,897	56,982	57,706	57,384
Employment-population ratio[2]	73.2	73.3	73.2	73.4	73.2	73.4	73.1	73.0	73.3	73.3	73.4	73.4	73.4	73.9	73.4
Agriculture	2,418	2,278	2,368	2,329	2,358	2,352	2,260	2,230	2,231	2,171	2,188	2,210	2,278	2,349	2,258
Nonagricultural industries	53,351	54,284	53,906	54,082	54,032	54,192	54,124	54,173	54,405	54,580	54,661	54,687	54,704	55,356	55,127
Unemployed	3,932	3,715	3,763	3,743	3,775	3,696	3,862	3,755	3,633	3,656	3,677	3,656	3,566	3,507	3,799
Unemployment rate	6.6	6.2	6.3	6.2	6.3	6.1	6.4	6.2	6.0	6.1	6.1	6.0	5.9	5.7	6.2
men, 20 years ond over															
lian noninstitutional population[1]	85,429	86,506	86,086	86,181	86,274	86,380	86,477	86,575	86,652	86,727	86,810	86,901	86,988	87,112	87,185
vilian labor force	45,900	47,283	46,853	47,095	47,103	47,082	47,185	47,190	47,340	47,558	47,663	47,713	47,870	47,895	47,921
Participation rate	53.7	54.7	54.4	54.6	54.6	54.5	54.6	54.5	54.6	54.8	54.9	54.9	55.0	55.0	55.0
Employed	42,793	44,154	43,713	43,927	43,925	43,883	44,033	44,070	44,197	44,363	44,609	44,656	44,882	44,980	44,710
Employment-population ratio[2]	50.1	51.0	50.8	51.0	50.9	50.8	50.9	50.9	51.0	51.2	51.4	51.4	51.6	51.6	51.3
Agriculture	595	596	606	630	633	600	572	596	581	557	609	591	597	696	593
Nonagricultural industries	42,198	43,558	43,107	43,297	43,292	43,283	43,461	43,474	43,616	43,806	44,000	44,065	44,285	44,284	44,117
Unemployed	3,107	3,129	3,140	3,168	3,178	3,199	3,152	3,120	3,143	3,195	3,054	3,057	2,988	2,915	3,211
Unemployment rate	6.8	6.6	6.7	6.7	6.7	6.8	6.7	6.6	6.6	6.7	6.4	6.4	6.2	6.1	6.7
th sexes, 16 to 19 years															
ilian noninstitutional population[1]	14,735	14,506	14,600	14,582	14,538	14,496	14,483	14,445	14,448	14,456	14,463	14,472	14,474	14,458	14,465
ivilian labor force	7,943	7,901	8,092	8,086	7,988	8,017	7,593	7,924	7,734	7,825	7,925	7,864	7,811	7,678	7,984
Participation rate	53.9	54.5	55.4	55.5	54.9	55.3	52.4	54.9	53.5	54.1	54.8	54.3	54.0	53.1	55.2
Employed	6,444	6,434	6,600	6,613	6,557	6,512	6,184	6,398	6,377	6,405	6,355	6,416	6,342	6,269	6,467
Employment-population ratio[2]	43.7	44.4	45.2	45.4	45.1	44.9	42.7	44.3	44.1	44.3	43.9	44.3	43.8	43.4	44.7
Agriculture	309	305	351	355	362	332	308	294	283	289	261	269	276	254	246
Nonagricultural industries	6,135	6,129	6,249	6,258	6,195	6,180	5,876	6,104	6,094	6,116	6,094	6,147	6,066	6,015	6,221
Unemployed	1,499	1,468	1,492	1,473	1,431	1,505	1,409	1,526	1,357	1,420	1,570	1,448	1,469	1,409	1,517
Unemployment rate	18.9	18.6	18.4	18.2	17.9	18.8	18.6	19.3	17.5	18.1	19.8	18.4	18.8	18.4	19.0
hite															
vilian noninstitutional population[1]	152,347	153,679	153,191	153,296	153,388	153,489	153,597	153,717	153,819	153,938	154,082	154,203	154,327	154,784	154,889
Civilian labor force	98,492	99,926	99,612	99,862	99,718	99,771	99,527	99,705	99,817	100,179	100,533	100,478	100,533	100,961	101,232
Participation rate	64.6	65.0	65.0	65.1	65.0	65.0	64.8	64.9	64.9	65.1	65.2	65.2	65.1	65.2	65.4
Employed	92,120	93,736	93,414	93,617	93,470	93,574	93,132	93,378	93,684	94,055	94,369	94,507	94,585	95,165	94,803
Employment-population ratio[2]	60.5	61.0	61.0	61.1	60.9	61.0	60.6	60.7	60.9	61.1	61.2	61.3	61.3	61.5	61.2
Unemployed	6,372	6,191	6,198	6,245	6,248	6,197	6,395	6,327	6,133	6,124	6,164	5,971	5,948	5,796	6,429
Unemployment rate	6.5	6.2	6.2	6.3	6.3	6.2	6.4	6.3	6.1	6.1	6.1	5.9	5.9	5.7	6.4
lack															
ivilian noninstitutional population[1]	19,348	19,664	19,542	19,569	19,594	19,620	19,646	19,675	19,700	19,728	19,761	19,790	19,819	19,837	19,863
Civilian labor force	12,033	12,364	12,299	12,294	12,364	12,372	12,317	12,354	12,289	12,378	12,412	12,457	12,522	12,548	12,545
Participation rate	62.2	62.9	62.9	62.8	63.1	63.1	62.7	62.8	62.4	62.7	62.8	62.9	63.2	63.3	63.2
Employed	10,119	10,501	10,333	10,422	10,489	10,466	10,538	10,499	10,560	10,500	10,566	10,518	10,657	10,737	10,690
Employment-population ratio[2]	52.3	53.4	52.9	53.3	53.5	53.3	53.6	53.4	53.6	53.2	53.5	53.1	53.8	54.1	53.8
Unemployed	1,914	1,864	1,966	1,872	1,875	1,906	1,779	1,855	1,729	1,878	1,846	1,939	1,865	1,810	1,855
Unemployment rate	15.9	15.1	16.0	15.2	15.2	15.4	14.4	15.0	14.1	15.2	14.9	15.6	14.9	14.4	14.8

ee footnotes at end of table.

5. Continued— Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally adjusted

(Numbers in thousands)

Employment status	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Hispanic origin															
Civilian noninstitutional population[1]	11,478	11,915	11,753	11,789	11,826	11,862	11,897	11,933	11,969	12,004	12,040	12,075	12,111	12,148	12,2
Civilian labor force	7,451	7,698	7,591	7,621	7,607	7,616	7,669	7,713	7,781	7,844	7,854	7,782	7,772	7,787	7,9
Participation rate	64.9	64.6	64.6	64.6	64.3	64.2	64.5	64.6	65.0	65.3	65.2	64.4	64.2	64.1	6
Employed	6,651	6,888	6,832	6,838	6,814	6,806	6,856	6,870	6,973	7,026	6,982	6,953	6,962	6,998	6,9
Employment-population ratio[2]	57.9	57.8	58.1	58.0	57.6	57.4	57.6	57.6	58.3	58.5	58.0	57.6	57.5	57.6	5
Unemployed	800	811	759	783	793	810	813	843	808	818	872	829	810	789	
Unemployment rate	10.7	10.5	10.0	10.3	10.4	10.6	10.6	10.9	10.4	10.4	11.1	10.7	10.4	10.1	1

[1] The population figures are not seasonally adjusted.
[2] Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to tot because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

6. Selected employment indicators, monthly data seasonally adjusted

(In thousands)

Selected categories	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
CHARACTERISTIC															
Civilian employed, 16 years and over	105,005	107,150	106,587	106,951	106,872	106,939	106,601	106,871	107,210	107,519	107,813	107,969	108,206	108,955	108,5
Men	59,091	59,891	59,653	59,828	59,820	59,942	59,623	59,719	59,936	60,049	60,105	60,179	60,244	60,919	60,7
Women	45,915	47,259	46,934	47,123	47,052	46,997	46,978	47,152	47,274	47,470	47,708	47,790	47,962	48,035	47,8
Married men, spouse present	39,056	39,248	39,324	39,467	39,362	39,260	38,966	39,096	39,142	39,103	39,272	39,314	39,278	39,615	39,3
Married women, spouse present	25,636	26,336	26,079	26,163	26,087	26,036	26,174	26,316	26,392	26,531	26,702	26,721	26,804	26,958	26,5
Women who maintain families	5,465	5,597	5,533	5,600	5,603	5,626	5,643	5,607	5,627	5,556	5,514	5,605	5,693	5,702	5,7
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,555	1,535	1,597	1,596	1,653	1,582	1,530	1,479	1,456	1,438	1,465	1,537	1,572	1,673	1,5
Self-employed workers	1,553	1,458	1,508	1,502	1,493	1,498	1,451	1,474	1,444	1,414	1,436	1,361	1,409	1,492	1,4
Unpaid family workers	213	185	229	223	219	196	159	170	176	179	172	158	164	163	1
Nonagricultural industries:															
Wage and salary workers	93,565	95,871	95,235	95,606	95,493	95,660	95,391	95,523	95,791	96,546	96,530	96,676	96,921	97,911	97,5
Government	15,770	16,031	15,957	15,969	15,955	15,936	16,000	15,949	16,075	16,145	16,213	16,157	16,194	16,418	16,1
Private industries	77,794	79,841	79,278	79,637	79,538	79,724	79,391	79,574	79,716	80,401	80,317	80,519	80,727	81,494	81,4
Private households	1,238	1,249	1,288	1,225	1,218	1,255	1,228	1,251	1,295	1,266	1,271	1,197	1,131	1,256	1,1
Other	76,556	78,592	77,990	78,412	78,320	78,469	78,163	78,323	78,421	79,135	79,046	79,322	79,596	80,238	80,2
Self-employed workers	7,785	7,811	7,694	7,764	7,717	7,711	7,728	7,724	7,874	7,846	7,991	8,013	7,903	7,655	7,6
Unpaid family workers	335	289	336	321	305	290	292	277	303	266	248	249	250	273	2
PERSONS AT WORK PART TIME[1]															
All industries:															
Part time for economic reasons	5,744	5,590	5,356	5,682	5,690	5,876	5,544	5,596	5,680	5,554	5,475	5,498	5,494	5,543	5,3
Slack work	2,430	2,430	2,244	2,585	2,567	2,607	2,524	2,414	2,480	2,433	2,251	2,306	2,303	2,364	2,3
Could only find part-time work	2,948	2,819	2,817	2,763	2,767	2,871	2,751	2,766	2,835	2,815	2,897	2,883	2,864	2,883	2,7
Voluntary part time	13,169	13,489	13,524	13,517	13,356	13,078	13,439	13,634	13,622	13,496	13,713	13,645	13,556	13,958	13,8
Nonagricultural industries:															
Part time for economic reasons	5,512	5,334	5,098	5,421	5,402	5,550	5,278	5,328	5,413	5,299	5,241	5,295	5,294	5,275	5,1
Slack work	2,291	2,273	2,073	2,397	2,380	2,418	2,334	2,251	2,319	2,292	2,115	2,196	2,195	2,208	2,2
Could only find part-time work	2,866	2,730	2,732	2,670	2,679	2,785	2,675	2,686	2,740	2,730	2,801	2,784	2,760	2,776	2,6
Voluntary part time	12,704	13,038	13,057	13,016	12,926	12,612	12,995	13,235	13,179	13,053	13,277	13,194	13,122	13,441	13,3

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

7. Selected unemployment indicators, monthly data seasonally adjusted

(Unemployment rates)

Selected categories	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
CHARACTERISTIC															
Total, all civilian workers	7.5	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.0	6.9	6.7	7.3
Both sexes, 16 to 19 years	18.9	18.6	18.4	18.2	17.9	18.8	18.6	19.3	17.5	18.1	19.8	18.4	18.8	18.4	19.0
Men, 20 years and over	6.6	6.2	6.3	6.2	6.3	6.1	6.4	6.2	6.0	6.1	6.1	6.0	5.9	5.7	6.2
Women, 20 years and over	6.8	6.6	6.7	6.7	6.7	6.8	6.7	6.6	6.6	6.7	6.4	6.4	6.2	6.1	6.7
White, total	6.5	6.2	6.2	6.3	6.3	6.2	6.4	6.3	6.1	6.1	6.1	5.9	5.9	5.7	6.4
Both sexes, 16 to 19 years	16.0	15.7	15.4	15.1	15.2	16.0	16.0	16.1	15.2	15.3	17.0	15.5	15.9	14.9	16.2
Men, 16 to 19 years	16.8	16.5	16.8	15.6	15.7	16.7	16.7	17.1	17.2	16.2	18.5	15.8	16.2	14.7	16.5
Women, 16 to 19 years	15.2	14.8	14.0	14.7	14.5	15.1	15.2	15.0	13.0	14.4	15.3	15.1	15.5	15.1	15.8
Men, 20 years and over	5.7	5.4	5.4	5.4	5.4	5.2	5.7	5.6	5.3	5.2	5.2	5.2	5.1	5.0	5.4
Women, 20 years and over	5.8	5.7	5.7	5.9	5.8	5.8	5.8	5.7	5.7	5.7	5.5	5.4	5.4	5.3	5.9
Black, total	15.9	15.1	16.0	15.2	15.2	15.4	14.4	15.0	14.1	15.2	14.9	15.6	14.9	14.4	14.8
Both sexes, 16 to 19 years	42.7	40.2	42.1	41.5	39.3	40.4	39.5	41.2	35.3	38.8	39.7	40.8	41.6	41.9	39.1
Men, 16 to 19 years	42.7	41.0	40.9	41.1	39.4	39.3	41.0	43.1	34.9	41.1	41.0	45.2	41.0	41.3	38.7
Women, 16 to 19 years	42.6	39.2	43.3	41.9	39.3	41.5	37.8	39.0	35.9	36.1	38.2	36.0	42.3	42.4	39.5
Men, 20 years and over	14.3	13.2	14.2	13.3	13.3	13.4	12.5	12.8	11.9	13.3	13.7	13.7	13.1	12.7	13.3
Women, 20 years and over	13.5	13.1	13.7	13.0	13.2	13.5	12.7	13.1	13.1	13.5	12.1	13.6	12.6	12.0	12.5
Hispanic origin, total[1]	10.7	10.5	10.0	10.3	10.4	10.6	10.6	10.9	10.4	10.4	11.1	10.7	10.4	10.1	12.3
Married men, spouse present	4.6	4.3	4.4	4.3	4.3	4.0	4.6	4.4	4.1	4.3	4.2	4.3	4.3	4.3	4.5
Married women, spouse present	5.7	5.6	5.4	5.8	5.8	5.7	5.8	5.7	5.4	5.6	5.3	5.5	5.3	5.1	5.5
Women who maintain families	10.3	10.4	10.9	10.3	10.7	10.8	9.9	10.3	10.8	11.3	10.4	10.0	9.4	9.9	9.9
Full-time workers	7.2	6.8	7.0	6.9	6.9	6.9	6.9	7.0	6.8	6.8	6.8	6.7	6.6	6.4	6.9
Part-time workers	9.3	9.3	8.8	9.5	9.7	10.0	9.5	9.4	9.0	9.3	9.6	8.8	9.0	8.4	9.4
Unemployed 15 weeks and over	2.4	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	2.0
Labor force time lost[1]	8.6	8.1	8.2	8.2	8.2	8.3	8.2	8.2	8.1	8.1	7.9	7.9	7.8	7.6	8.1
INDUSTRY															
Nonagricultural private wage and salary workers	7.4	7.2	7.3	7.2	7.3	7.2	7.3	7.3	7.1	7.2	7.1	7.0	6.9	6.7	7.2
Mining	10.0	9.5	10.8	10.9	10.6	7.5	10.9	9.9	8.6	8.9	7.7	7.3	10.3	10.9	9.2
Construction	14.3	13.1	13.4	13.3	13.3	11.0	13.5	13.4	13.1	13.6	13.5	13.4	12.6	12.9	13.2
Manufacturing	7.5	7.7	7.6	7.7	7.9	7.8	7.7	7.9	7.8	7.7	7.5	7.7	7.3	7.0	7.2
Durable goods	7.2	7.6	7.3	7.5	7.7	7.8	7.9	7.9	7.9	7.7	7.3	7.6	7.3	7.0	7.4
Nondurable goods	7.8	7.8	8.0	8.1	8.2	7.8	7.5	7.9	7.6	7.8	7.8	7.8	7.3	7.1	7.0
Transportation and public utilities	5.5	5.1	5.4	4.7	5.4	5.2	5.3	5.7	4.5	5.3	5.1	5.1	5.0	4.3	5.3
Wholesale and retail trade	8.0	7.6	7.7	7.5	7.4	7.8	7.7	7.6	7.7	7.8	7.7	7.5	7.6	7.2	7.8
Finance and service industries	5.9	5.6	5.7	5.7	5.7	6.1	5.7	5.6	5.5	5.5	5.4	5.4	5.3	5.2	5.9
Government workers	4.5	3.9	4.0	4.0	3.9	3.9	3.9	4.0	3.9	3.8	3.9	3.6	3.8	3.4	3.8
Agricultural wage and salary workers	13.5	13.2	13.6	12.5	13.2	11.9	12.5	14.0	14.0	13.3	12.9	12.5	10.6	10.9	14.3

[1] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

8. Unemployment rates by sex and age, monthly data seasonally adjusted

(Civilian workers)

Sex and age	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Total, 16 years and over	7.5	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1	7.0	6.9	6.7	7.
16 to 24 years	13.9	13.6	13.7	13.5	13.4	14.0	13.6	13.9	13.0	13.3	13.9	13.5	13.3	13.0	13.
16 to 19 years	18.9	18.6	18.4	18.2	17.9	18.8	18.6	19.3	17.5	18.1	19.8	18.4	18.8	18.4	19.
16 to 17 years	21.2	21.0	20.4	20.6	20.8	21.2	21.6	21.7	19.1	20.3	22.7	21.4	21.1	20.9	21.
18 to 19 years	17.4	17.0	17.4	16.5	16.3	17.1	16.4	17.3	16.8	16.7	17.8	16.9	17.5	16.4	17
20 to 24 years	11.5	11.1	11.2	11.1	11.1	11.6	11.2	11.2	10.8	10.9	10.9	11.0	10.6	10.4	10
25 years and over	5.8	5.6	5.6	5.6	5.7	5.5	5.8	5.6	5.5	5.6	5.4	5.4	5.3	5.1	5
25 to 54 years	6.1	5.8	5.9	6.0	6.1	5.8	6.0	5.9	5.8	5.8	5.7	5.6	5.5	5.4	5
55 years and over	4.5	4.1	4.0	4.0	4.1	4.3	4.3	4.4	4.1	4.1	3.9	3.8	3.9	3.9	4
Men, 16 years and over	7.4	7.0	7.1	7.0	7.1	7.0	7.2	7.2	6.9	6.9	7.1	6.9	6.7	6.5	7
16 to 24 years	14.4	14.1	14.3	13.9	13.8	14.7	14.2	14.6	13.8	13.8	14.6	13.9	13.5	12.8	13
16 to 19 years	19.6	19.5	19.4	18.5	18.5	19.4	19.2	20.5	19.6	19.3	21.5	19.4	19.3	18.2	19
16 to 17 years	21.9	21.9	21.3	21.7	21.4	22.2	23.2	22.1	21.9	20.7	24.0	20.9	21.6	20.9	23
18 to 19 years	18.3	17.9	18.4	16.1	16.8	17.6	16.4	18.7	18.1	18.3	19.9	18.7	18.0	16.2	16
20 to 24 years	11.9	11.4	11.8	11.7	11.4	12.3	11.7	11.6	10.9	11.0	11.1	11.2	10.6	10.3	10
25 years and over	5.7	5.3	5.4	5.3	5.5	5.1	5.6	5.4	5.3	5.3	5.3	5.2	5.1	5.0	5
25 to 54 years	5.9	5.6	5.6	5.6	5.8	5.3	5.8	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5
55 years and over	4.6	4.1	4.1	3.9	4.0	4.1	4.4	4.6	3.8	4.0	4.1	4.0	3.9	3.9	4
Women, 16 years and over	7.6	7.4	7.5	7.6	7.5	7.6	7.5	7.4	7.3	7.5	7.3	7.2	7.1	7.0	7
16 to 24 years	13.3	13.0	13.0	13.1	12.9	13.3	12.9	13.1	12.2	12.9	13.1	13.1	13.2	13.2	13
16 to 19 years	18.0	17.6	17.4	17.9	17.2	18.1	17.8	17.9	15.3	16.9	17.9	17.4	18.3	18.5	18
16 to 17 years	20.4	20.0	19.4	19.3	20.0	20.1	19.9	21.2	15.8	19.8	21.2	22.0	20.6	20.8	20
18 to 19 years	16.6	16.0	16.3	16.9	15.7	16.5	16.4	15.7	15.3	14.9	15.5	15.1	16.9	16.5	17
20 to 24 years	10.9	10.7	10.6	10.5	10.7	10.8	10.6	10.7	10.7	10.9	10.7	10.8	10.6	10.5	11
25 years and over	6.0	5.9	6.0	6.0	6.0	6.1	6.0	5.9	5.8	6.0	5.6	5.6	5.4	5.3	5
25 to 54 years	6.3	6.2	6.3	6.4	6.3	6.4	6.3	6.2	6.1	6.2	5.9	5.9	5.7	5.6	6
55 years and over	4.2	4.1	3.9	4.2	4.2	4.4	4.1	4.2	4.5	4.2	3.7	3.6	3.9	3.8	4

9. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Reason for unemployment	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Job losers	4,421	4,139	4,236	4,177	4,229	3,994	4,167	4,206	4,144	4,142	4,040	4,081	3,933	3,776	4,16
On layoff	1,171	1,157	1,203	1,155	1,182	1,068	1,135	1,134	1,112	1,167	1,161	1,175	1,132	1,163	1,15
Other job losers	3,250	2,982	3,033	3,022	3,047	2,926	3,032	3,072	3,032	2,975	2,879	2,906	2,801	2,613	3,01
Job leavers	823	877	868	861	852	870	983	894	875	852	911	808	876	996	1,00
Reentrants	2,184	2,256	2,238	2,301	2,283	2,378	2,233	2,184	2,191	2,335	2,237	2,226	2,225	2,066	2,29
New entrants	1,110	1,039	1,056	1,074	1,051	1,142	1,018	1,098	941	918	1,045	1,055	1,033	1,025	1,09
PERCENT OF UNEMPLOYED															
Job losers	51.8	49.8	50.4	49.6	50.3	47.6	49.6	50.2	50.8	50.2	49.1	50.0	48.8	48.0	48
On layoff	13.7	13.9	14.3	13.7	14.0	12.7	13.5	13.5	13.6	14.2	14.1	14.4	14.0	14.8	13
Other job losers	38.1	35.9	36.1	35.9	36.2	34.9	36.1	36.6	37.2	36.1	35.0	35.6	34.7	33.2	35
Job leavers	9.6	10.6	10.3	10.2	10.1	10.4	11.7	10.7	10.7	10.3	11.1	9.9	10.9	12.7	11
Reentrants	25.6	27.1	26.6	27.4	27.1	28.4	26.6	26.1	26.9	28.3	27.2	27.2	27.6	26.3	26
New entrants	13.0	12.5	12.6	12.8	12.5	13.6	12.1	13.1	11.5	11.1	12.7	12.9	12.8	13.0	12
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	3.9	3.6	3.7	3.6	3.7	3.5	3.6	3.6	3.6	3.6	3.5	3.5	3.4	3.2	3
Job leavers	.7	.8	.8	.7	.7	.8	.9	.8	.8	.7	.8	.7	.8	.9	
Reentrants	1.9	2.0	1.9	2.0	2.0	2.1	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.8	2
New entrants	1.0	.9	.9	.9	.9	1.0	.9	1.0	.8	.8	.9	.9	.9	.9	

10. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Weeks of unemployment	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Less than 5 weeks	3,350	3,498	3,501	3,556	3,528	3,607	3,466	3,525	3,422	3,484	3,430	3,465	3,374	3,311	3,562
5 to 14 weeks	2,451	2,509	2,488	2,487	2,516	2,594	2,536	2,514	2,508	2,505	2,536	2,448	2,460	2,441	2,622
15 weeks and over	2,737	2,305	2,413	2,400	2,374	2,274	2,328	2,329	2,274	2,307	2,277	2,205	2,188	2,056	2,340
15 to 26 weeks	1,104	1,025	1,065	1,061	1,031	1,063	1,033	1,078	1,047	1,035	1,057	894	973	969	1,149
27 weeks and over	1,634	1,280	1,348	1,339	1,343	1,211	1,295	1,251	1,227	1,272	1,220	1,311	1,215	1,087	1,191
Mean duration in weeks	18.2	15.6	16.0	15.9	16.1	15.0	15.5	15.5	15.5	15.5	15.4	15.7	15.4	14.9	15.3
Median duration in weeks	7.9	6.8	7.1	7.0	6.8	6.7	6.8	7.1	7.2	6.9	7.0	6.9	6.9	6.8	6.9

11. Unemployment rates of civilian workers by State, data not seasonally adjusted

State	Jan. 1985	Jan. 1986	State	Jan. 1985	Jan. 1986
Alabama	11.4	9.1	Montana	9.2	9.5
Alaska	11.2	11.5	Nebraska	6.0	7.0
Arizona	5.6	6.5	Nevada	8.8	8.5
Arkansas	9.7	9.7	New Hampshire	5.8	3.8
California	8.0	6.6	New Jersey	6.7	6.9
Colorado	7.0	–	New Mexico	7.9	9.2
Connecticut	5.6	4.5	New York	7.0	6.7
Delaware	7.4	5.2	North Carolina	7.1	5.9
District of Columbia	8.6	7.6	North Dakota	7.2	7.9
Florida	6.5	5.6	Ohio	9.0	9.3
Georgia	6.0	5.6	Oklahoma	8.3	7.3
Hawaii	5.2	5.9	Oregon	10.8	8.8
Idaho	9.6	–	Pennsylvania	8.6	8.1
Illinois	9.8	8.6	Rhode Island	5.3	5.3
Indiana	10.2	–	South Carolina	8.0	7.8
Iowa	9.5	9.2	South Dakota	5.9	5.6
Kansas	5.8	6.1	Tennessee	9.4	8.5
Kentucky	9.7	11.6	Texas	6.9	6.9
Louisiana	11.4	12.7	Utah	7.5	6.5
Maine	7.3	6.8	Vermont	5.1	5.3
Maryland	6.1	4.9	Virginia	5.9	6.1
Massachusetts	4.6	4.1	Washington	10.9	8.7
Michigan	12.1	9.4	West Virginia	15.9	13.4
Minnesota	7.5	7.7	Wisconsin	8.2	8.5
Mississippi	11.7	11.1	Wyoming	7.5	10.3
Missouri	8.2	6.6			

– Data not available.
NOTE: Some data in this table may differ from data published elsewhere because of the continued updating of the database.

12. Employment of workers on nonagricultural payrolls by State, data not seasonally adjusted

(In thousands)

State	Jan., 1985	Dec., 1985	Jan., 1986[p]	State	Jan., 1985	Dec., 1985	Jan., 1986[p]
Alabama	1,392.9	1,439.9	1,424.9	Nebraska	636.7	654.7	642.1
Alaska	213.1	224.5	217.0	Nevada	429.0	453.1	447.8
Arizona	1,230.6	1,323.8	1,304.1	New Hampshire	446.2	483.5	473.0
Arkansas	770.1	814.8	803.2	New Jersey	3,318.2	3,471.9	3,400.7
California	10,718.3	11,186.2	11,051.3	New Mexico	504.9	526.9	519.2
Colorado	1,403.0	1,440.6	1,425.3	New York	7,553.3	7,909.8	7,725.7
Connecticut	1,532.2	1,601.2	1,571.1	North Carolina	2,588.5	2,706.7	2,672.7
Delaware	280.2	300.2	291.7	North Dakota	245.3	251.2	243.6
District of Columbia	616.2	637.5	629.5	Ohio	4,237.6	4,483.7	4,384.1
Florida	4,351.8	4,532.1	4,519.3	Oklahoma	1,171.2	1,177.1	1,160.8
Georgia	2,490.1	2,626.1	2,595.6	Oregon	998.5	1,043.0	1,024.0
Hawaii	415.2	430.2	427.3	Pennsylvania	4,602.7	4,824.9	4,710.8
Idaho	325.6	343.0	332.6	Rhode Island	418.2	431.4	420.7
Illinois	4,686.9	4,794.4	4,685.4	South Carolina	1,260.3	1,321.8	1,307.2
Indiana	2,112.3	2,220.6	2,187.0	South Dakota	242.3	247.1	242.1
Iowa	1,048.8	1,080.9	1,063.5	Tennessee	1,804.0	1,900.9	1,879.2
Kansas	949.6	986.0	960.3	Texas	6,568.4	6,766.7	6,710.0
Kentucky	1,213.6	1,271.7	1,244.9	Utah	608.4	638.1	628.0
Louisiana	1,585.8	1,600.4	1,569.9	Vermont	217.0	231.5	228.3
Maine	436.4	465.2	452.5	Virginia	2,362.8	2,522.9	2,486.5
Maryland	1,816.2	1,928.0	1,870.9	Washington	1,648.1	1,735.8	1,707.1
Massachusetts	2,849.5	2,985.9	2,911.6	West Virginia	581.4	600.9	589.9
Michigan	3,413.4	3,588.7	3,511.3	Wisconsin	1,921.4	2,001.0	1,958.3
Minnesota	1,808.8	1,885.2	1,839.6	Wyoming	195.5	201.9	195.9
Mississippi	818.5	855.8	841.9	Puerto Rico	695.5	702.8	687.2
Missouri	2,030.6	2,131.5	2,092.6	Virgin Islands	36.8	36.8	36.4
Montana	271.1	276.8	271.3				

[p] = preliminary
NOTE: Some data in this table may differ from data published elsewhere because of the continued updating of the database.

13. Employment of workers on nonagricultural payrolls by industry, monthly data seasonally adjusted

(In thousands)

Industry	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[p]	Feb.[p]
TOTAL	94,461	97,699	96,591	96,910	97,120	97,421	97,473	97,707	97,977	98,217	98,559	98,801	99,086	99,507	99,7
PRIVATE SECTOR	78,477	81,404	80,480	80,767	80,962	81,208	81,260	81,366	81,634	81,765	82,073	82,317	82,573	83,026	83,2
GOODS PRODUCING	24,730	25,057	25,062	25,056	25,090	25,066	25,010	24,980	25,015	24,962	25,051	25,089	25,155	25,317	25,2
Mining	974	969	976	977	982	982	974	969	965	962	960	954	952	948	9
Oil and gas extraction	613	616	620	618	623	624	619	619	615	615	610	605	603	599	5
Construction	4,345	4,662	4,525	4,553	4,641	4,658	4,638	4,660	4,688	4,721	4,753	4,754	4,770	4,909	4,8
General building contractors	1,158	1,240	1,214	1,223	1,233	1,234	1,223	1,228	1,242	1,252	1,262	1,269	1,274	1,328	1,3
Manufacturing	19,412	19,426	19,561	19,526	19,467	19,426	19,398	19,351	19,362	19,279	19,338	19,381	19,433	19,460	19,4
Production workers	13,310	13,214	13,347	13,309	13,249	13,203	13,169	13,137	13,145	13,087	13,140	13,169	13,219	13,231	13,2
Durable goods	11,522	11,566	11,675	11,651	11,608	11,586	11,560	11,509	11,519	11,449	11,493	11,512	11,534	11,546	11,5
Production workers	7,749	7,692	7,806	7,776	7,730	7,704	7,671	7,630	7,638	7,586	7,627	7,636	7,651	7,655	7,6
Lumber and wood products	707	703	704	701	694	697	694	697	700	701	708	712	715	721	7
Furniture and fixtures	487	497	498	499	497	493	494	494	499	494	496	497	499	499	4
Stone, clay, and glass products	595	600	600	601	600	599	598	599	601	598	600	601	604	607	6
Primary metal industries	858	816	840	832	823	819	815	806	798	795	799	804	810	803	8
Blast furnaces and basic steel products	334	303	313	311	306	305	304	302	289	291	292	299	303	299	3
Fabricated metal products	1,464	1,472	1,483	1,480	1,479	1,477	1,472	1,467	1,467	1,462	1,465	1,466	1,463	1,463	1,4
Machinery, except electrical	2,197	2,181	2,224	2,220	2,207	2,203	2,191	2,175	2,167	2,143	2,143	2,137	2,133	2,135	2,1
Electrical and electronic equipment	2,208	2,208	2,248	2,243	2,223	2,216	2,205	2,190	2,194	2,175	2,179	2,180	2,186	2,190	2,1
Transportation equipment	1,906	1,990	1,972	1,969	1,982	1,981	1,990	1,985	1,995	1,986	2,008	2,017	2,025	2,026	2,0
Motor vehicles and equipment	860	872	876	867	876	873	875	868	868	861	872	868	875	874	8
Instruments and related products	714	724	725	727	726	723	725	724	725	722	722	723	725	725	7
Miscellaneous manufacturing industries	384	376	381	379	377	378	376	372	373	373	373	375	374	377	3
Nondurable goods	7,890	7,860	7,886	7,875	7,859	7,840	7,838	7,842	7,843	7,830	7,845	7,869	7,899	7,914	7,9
Production workers	5,561	5,523	5,541	5,533	5,519	5,499	5,498	5,507	5,507	5,501	5,513	5,533	5,568	5,576	5,5
Food and kindred products	1,619	1,637	1,633	1,638	1,630	1,634	1,644	1,630	1,638	1,633	1,636	1,638	1,655	1,652	1,6
Tobacco manufactures	65	65	66	66	66	66	66	65	64	65	64	65	64	65	
Textile mill products	746	703	712	706	707	701	699	696	697	695	698	700	700	702	7
Apparel and other textile products	1,197	1,162	1,175	1,167	1,164	1,153	1,142	1,160	1,152	1,155	1,158	1,160	1,171	1,173	1,1
Paper and allied products	681	683	682	682	681	682	684	684	683	681	682	688	686	689	6
Printing and publishing	1,372	1,422	1,406	1,407	1,411	1,414	1,419	1,426	1,429	1,427	1,431	1,442	1,442	1,450	1,4
Chemicals and allied products	1,048	1,042	1,052	1,052	1,049	1,044	1,042	1,040	1,038	1,040	1,036	1,033	1,033	1,032	1,0
Petroleum and coal products	189	177	184	183	182	181	180	178	176	170	170	169	169	169	
Rubber and misc. plastics products	782	795	799	798	795	791	789	787	792	790	795	800	804	810	8
Leather and leather products	192	175	177	176	174	174	173	176	174	174	175	174	175	172	
SERVICE-PRODUCING	69,731	72,643	71,529	71,854	72,030	72,355	72,463	72,727	72,962	73,255	73,508	73,712	73,931	74,190	74,4
Transportation and public utilities	5,171	5,300	5,272	5,269	5,278	5,301	5,295	5,302	5,282	5,317	5,327	5,342	5,350	5,360	5,3
Transportation	2,929	3,059	3,029	3,028	3,037	3,057	3,052	3,060	3,038	3,078	3,087	3,106	3,115	3,127	3,1
Communication and public utilities	2,242	2,241	2,243	2,241	2,241	2,244	2,243	2,242	2,244	2,239	2,240	2,236	2,235	2,232	2,2
Wholesale trade	5,550	5,769	5,697	5,714	5,733	5,748	5,768	5,773	5,791	5,805	5,830	5,833	5,848	5,874	5,9
Durable goods	3,272	3,417	3,367	3,377	3,388	3,402	3,414	3,426	3,434	3,442	3,454	3,464	3,473	3,489	3,5
Nondurable goods	2,278	2,352	2,330	2,337	2,345	2,346	2,354	2,347	2,357	2,363	2,376	2,369	2,375	2,385	2,4
Retail trade	16,584	17,425	17,160	17,249	17,280	17,392	17,425	17,453	17,514	17,539	17,610	17,640	17,702	17,840	17,9
General merchandise stores	2,278	2,354	2,343	2,349	2,348	2,371	2,361	2,344	2,354	2,356	2,365	2,367	2,353	2,367	2,4
Food stores	2,655	2,827	2,773	2,790	2,794	2,823	2,831	2,842	2,849	2,852	2,869	2,865	2,882	2,914	2,9
Automotive dealers and service stations	1,802	1,892	1,865	1,873	1,884	1,890	1,895	1,895	1,902	1,906	1,912	1,914	1,916	1,929	1,9
Eating and drinking places	5,403	5,692	5,588	5,615	5,642	5,660	5,692	5,728	5,725	5,740	5,758	5,774	5,803	5,819	5,8
Finance, insurance, and real estate	5,682	5,924	5,809	5,835	5,858	5,888	5,906	5,932	5,959	5,987	6,011	6,048	6,068	6,100	6,1
Finance	2,855	2,978	2,919	2,933	2,941	2,956	2,968	2,984	2,998	3,011	3,023	3,038	3,054	3,070	3,0
Insurance	1,753	1,816	1,789	1,792	1,799	1,808	1,814	1,817	1,827	1,831	1,837	1,850	1,852	1,862	1,8
Real estate	1,074	1,130	1,101	1,110	1,118	1,124	1,124	1,131	1,134	1,145	1,151	1,160	1,162	1,168	1,1
Services	20,761	21,930	21,480	21,644	21,723	21,813	21,856	21,926	22,073	22,155	22,244	22,365	22,450	22,535	22,6
Business services	4,076	4,453	4,324	4,377	4,402	4,424	4,441	4,446	4,489	4,504	4,539	4,571	4,607	4,621	4,6
Health services	6,104	6,267	6,186	6,204	6,218	6,240	6,243	6,260	6,291	6,308	6,333	6,363	6,389	6,406	6,4
Government	15,984	16,295	16,111	16,143	16,158	16,213	16,213	16,341	16,343	16,452	16,486	16,484	16,513	16,481	16,4
Federal	2,807	2,875	2,834	2,850	2,859	2,873	2,872	2,878	2,886	2,904	2,892	2,904	2,914	2,910	2,9
State	3,712	3,780	3,733	3,744	3,749	3,759	3,765	3,788	3,789	3,818	3,827	3,833	3,827	3,832	3,8
Local	9,465	9,640	9,544	9,549	9,550	9,581	9,576	9,675	9,668	9,730	9,767	9,747	9,772	9,739	9,7

[p] = preliminary

NOTE: See notes on the data for a description of the most recent benchmark revision.

14. Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls by industry, monthly data seasonally adjusted

Industry	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[p]	Feb.[p]
PRIVATE SECTOR	35.3	35.1	35.1	35.2	35.0	35.1	35.1	35.0	35.1	35.1	35.1	35.0	35.1	35.2	35.0
CONSTRUCTION	37.7	37.7	37.8	38.1	38.0	37.6	37.2	37.6	37.5	37.9	37.9	37.4	37.1	38.7	36.3
MANUFACTURING	40.7	40.5	40.1	40.4	40.2	40.4	40.4	40.3	40.6	40.7	40.7	40.7	41.0	40.9	40.6
Overtime hours	3.4	3.3	3.3	3.2	3.4	3.1	3.2	3.2	3.3	3.3	3.4	3.4	3.6	3.5	3.4
Durable goods	41.4	41.2	40.7	41.1	40.9	41.1	41.2	41.0	41.3	41.3	41.3	41.3	41.7	41.6	41.3
Overtime hours	3.6	3.5	3.5	3.5	3.6	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.8	3.7	3.5
Lumber and wood products	39.9	39.8	38.9	39.6	39.5	39.8	40.1	39.7	40.0	40.1	40.3	39.9	40.2	40.3	39.6
Furniture and fixtures	39.7	39.4	39.5	39.5	39.3	38.9	38.9	38.8	39.2	39.4	39.4	39.4	40.1	40.6	39.9
Stone, clay, and glass products	42.0	41.9	41.6	42.0	42.0	42.1	41.9	42.0	42.0	42.0	42.1	41.6	41.7	42.7	41.9
Primary metal industries	41.7	41.5	40.9	41.1	41.0	41.2	41.6	41.4	41.7	41.5	41.8	41.8	42.2	41.9	41.9
Blast furnaces and basic steel products	40.6	41.1	40.5	40.5	40.2	40.7	41.2	41.2	41.8	41.0	41.7	42.0	41.9	42.1	41.5
Fabricated metal products	41.4	41.3	40.9	41.1	41.1	41.1	41.3	41.3	41.4	41.6	41.5	41.4	41.6	41.6	41.6
Machinery except electrical	41.9	41.5	41.1	41.6	41.2	41.4	41.6	41.3	41.6	41.6	41.6	41.6	41.8	41.6	41.5
Electrical and electronic equipment	41.0	40.6	40.2	40.7	40.2	40.4	40.6	40.3	40.7	40.5	40.6	41.0	41.4	41.2	40.8
Transportation equipment	42.7	42.7	41.9	42.5	42.3	42.6	42.3	42.5	42.9	42.9	42.8	42.6	43.2	43.0	42.6
Motor vehicles and equipment	43.8	43.5	42.4	43.2	43.3	43.5	42.7	43.3	43.8	43.8	43.8	43.7	44.2	43.7	43.6
Instruments and related products	41.3	41.0	40.7	41.0	40.7	40.9	41.1	40.7	40.7	40.9	40.8	41.1	41.9	41.3	41.1
Miscellaneous manufacturing	39.4	39.4	39.0	39.1	39.0	39.3	39.4	39.0	39.3	39.8	39.9	39.7	40.0	40.4	39.8
Nondurable goods	39.6	39.5	39.3	39.4	39.1	39.4	39.4	39.4	39.6	39.8	39.9	39.8	40.1	40.0	39.6
Overtime hours	3.1	3.1	2.9	2.9	3.0	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.4	3.3	3.2
Food and kindred products	39.8	40.0	39.7	39.8	39.6	40.1	39.6	40.0	39.9	40.2	40.3	39.9	40.3	40.2	39.9
Tobacco manufactures	38.9	37.2	39.2	38.9	35.4	37.0	36.6	34.6	36.8	36.9	38.2	35.2	38.0	38.3	37.7
Textile mill products	39.9	39.7	38.8	39.1	38.8	38.9	39.4	39.1	40.0	40.7	40.7	41.0	41.3	40.9	40.2
Apparel and other textile products	36.4	36.3	35.9	36.1	35.6	36.2	36.3	36.3	36.4	36.5	36.6	36.8	37.0	37.0	36.0
Paper and allied products	43.1	43.1	42.9	42.9	43.0	43.0	42.9	42.7	43.0	43.1	43.3	43.3	43.6	43.7	43.6
Printing and publishing	37.9	37.7	37.7	37.6	37.6	37.4	37.5	37.5	37.9	38.0	37.9	37.8	38.2	37.9	37.7
Chemicals and allied products	41.9	41.9	41.9	42.1	41.9	41.9	42.0	41.8	41.8	41.6	41.7	41.9	42.0	42.0	41.8
Petroleum and coal products	43.7	43.0	43.1	43.3	42.0	41.7	42.6	42.9	43.3	43.4	44.3	43.1	43.7	43.5	43.3
Leather and leather products	36.8	37.3	36.4	37.1	37.0	37.1	37.0	37.0	37.3	37.8	37.9	37.7	37.8	37.4	36.8
TRANSPORTATION AND PUBLIC UTILITIES	39.4	39.4	39.4	39.5	39.4	39.5	39.5	39.2	39.6	39.5	39.5	39.4	39.5	39.6	39.7
WHOLESALE TRADE	38.6	38.7	38.6	38.7	38.6	38.7	38.8	38.6	38.6	38.7	38.6	38.7	38.7	38.8	38.8
RETAIL TRADE	30.0	29.7	29.8	29.8	29.7	29.9	29.9	29.7	29.6	29.6	29.5	29.5	29.3	29.5	29.4
SERVICES	32.8	32.8	32.8	32.8	32.7	32.8	32.8	32.7	32.8	32.8	32.9	32.8	32.8	32.9	32.9

[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark adjustment.

15. Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[p]	Feb.[p]
PRIVATE SECTOR	$8.33	$8.58	$8.52	$8.52	$8.54	$8.53	$8.56	$8.54	$8.54	$8.68	$8.65	$8.68	$8.73	$8.74	$8.74
Seasonally adjusted	–	–	8.49	8.52	8.54	8.55	8.59	8.57	8.60	8.65	8.64	8.67	8.74	8.68	8.72
MINING	11.63	11.95	11.90	11.91	11.93	11.86	11.99	11.88	11.95	12.00	11.95	12.02	12.22	12.19	12.29
CONSTRUCTION	12.12	12.26	12.33	12.22	12.21	12.19	12.12	12.16	12.22	12.40	12.36	12.22	12.42	12.29	12.31
MANUFACTURING	9.18	9.52	9.43	9.45	9.48	9.48	9.50	9.53	9.48	9.55	9.54	9.61	9.72	9.68	9.68
Durable goods	9.74	10.09	9.99	10.01	10.03	10.04	10.08	10.10	10.05	10.15	10.14	10.21	10.34	10.27	10.28
Lumber and wood products	8.03	8.20	8.09	8.06	8.04	8.12	8.24	8.20	8.26	8.31	8.29	8.28	8.34	8.28	8.29
Furniture and fixtures	6.85	7.19	7.01	7.07	7.08	7.11	7.18	7.22	7.22	7.29	7.31	7.34	7.40	7.36	7.35
Stone, clay, and glass products	9.57	9.83	9.73	9.71	9.80	9.80	9.84	9.89	9.87	9.90	9.86	9.90	9.94	9.94	9.96
Primary metal industries	11.47	11.68	11.69	11.66	11.64	11.64	11.65	11.78	11.63	11.69	11.61	11.76	11.84	11.82	11.91
Blast furnaces and basic steel products	12.99	13.35	13.42	13.27	13.32	13.31	13.29	13.51	13.37	13.45	13.34	13.44	13.46	13.50	13.69
Fabricated metal products	9.38	9.66	9.59	9.62	9.64	9.63	9.65	9.66	9.61	9.70	9.68	9.73	9.88	9.81	9.84
Machinery, except electrical	9.96	10.29	10.14	10.15	10.17	10.22	10.28	10.31	10.27	10.39	10.41	10.48	10.55	10.49	10.54
Electrical and electronic equipment	9.04	9.47	9.33	9.39	9.40	9.39	9.46	9.47	9.50	9.55	9.56	9.61	9.68	9.62	9.60
Transportation equipment	12.22	12.71	12.63	12.59	12.63	12.63	12.66	12.65	12.65	12.78	12.77	12.83	13.06	12.90	12.86
Motor vehicles and equipment	12.74	13.44	13.35	13.29	13.40	13.38	13.39	13.38	13.34	13.51	13.46	13.55	13.84	13.69	13.64
Instruments and related products	8.85	9.19	9.11	9.10	9.11	9.13	9.15	9.20	9.22	9.28	9.27	9.30	9.42	9.35	9.36
Miscellaneous manufacturing	7.04	7.28	7.19	7.20	7.22	7.28	7.28	7.30	7.26	7.30	7.30	7.35	7.47	7.48	7.47
Nondurable goods	8.37	8.68	8.60	8.61	8.67	8.64	8.65	8.72	8.67	8.70	8.69	8.75	8.84	8.82	8.83
Food and kindred products	8.38	8.54	8.51	8.53	8.59	8.58	8.55	8.54	8.47	8.51	8.49	8.58	8.68	8.70	8.68
Tobacco manufactures	11.27	12.05	11.80	12.00	12.16	12.65	12.83	12.91	12.44	11.47	11.45	12.08	11.90	11.96	12.26
Textile mill products	6.46	6.71	6.60	6.64	6.70	6.68	6.69	6.69	6.72	6.75	6.76	6.79	6.83	6.85	6.83
Apparel and other textile products	5.55	5.73	5.70	5.73	5.74	5.69	5.70	5.70	5.68	5.75	5.73	5.75	5.80	5.82	5.80
Paper and allied products	10.41	10.82	10.64	10.64	10.72	10.75	10.79	10.91	10.86	10.90	10.91	10.97	11.07	10.99	11.00
Printing and publishing	9.40	9.69	9.60	9.61	9.60	9.60	9.61	9.67	9.73	9.79	9.75	9.81	9.90	9.81	9.83
Chemicals and allied products	11.08	11.57	11.39	11.37	11.48	11.46	11.52	11.60	11.62	11.67	11.72	11.82	11.87	11.86	11.84
Petroleum and coal products	13.43	14.04	13.99	14.06	14.18	14.00	13.97	14.03	13.99	14.07	13.97	14.06	14.22	14.25	14.06
Rubber and miscellaneous plastics products	8.29	8.53	8.48	8.46	8.48	8.45	8.50	8.54	8.51	8.55	8.53	8.62	8.72	8.68	8.71
Leather and leather products	5.70	5.82	5.79	5.82	5.84	5.83	5.83	5.83	5.80	5.82	5.76	5.83	5.83	5.87	5.87
TRANSPORTATION AND PUBLIC UTILITIES	11.11	11.38	11.27	11.24	11.27	11.24	11.32	11.35	11.40	11.52	11.46	11.57	11.60	11.60	11.67
WHOLESALE TRADE	8.96	9.26	9.22	9.19	9.24	9.24	9.28	9.27	9.25	9.33	9.25	9.32	9.41	9.37	9.38
RETAIL TRADE	5.88	5.97	5.99	5.97	5.96	5.97	5.94	5.93	5.91	5.99	5.97	6.00	6.02	6.06	6.06
FINANCE, INSURANCE, AND REAL ESTATE	7.62	7.93	7.87	7.87	7.85	7.83	7.95	7.87	7.90	8.03	8.00	8.05	8.14	8.14	8.23
SERVICES	7.64	7.95	7.87	7.87	7.89	7.88	7.91	7.86	7.87	8.04	8.04	8.10	8.16	8.17	8.22

– Data not available.
[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.[p]	Feb.[p]
PRIVATE SECTOR															
Current dollars	$294.05	$301.16	$294.79	$298.20	$298.05	$298.55	$303.02	$301.46	$302.32	$305.54	$303.62	$302.93	$308.17	$304.15	$302.40
Seasonally adjusted	–	–	298.00	299.90	298.90	300.11	301.51	299.95	301.86	303.62	303.26	303.45	306.77	305.54	305.20
Constant (1977) dollars	173.48	171.60	170.50	171.68	170.80	170.50	172.56	171.48	171.68	173.01	171.54	170.47	172.93	170.20	–
MINING	503.58	518.63	514.08	519.28	516.57	515.91	523.96	509.65	517.44	524.40	516.24	520.47	535.24	542.46	528.47
CONSTRUCTION	456.92	462.20	451.28	460.69	461.54	464.44	461.77	469.38	468.03	477.40	472.15	448.47	458.30	458.42	432.08
MANUFACTURING															
Current dollars	373.63	385.56	374.37	381.78	380.15	382.04	385.70	382.15	382.99	389.64	388.28	393.05	404.35	393.98	389.14
Constant (1977) dollars	220.43	219.69	216.52	219.79	217.85	218.18	219.65	217.38	217.48	220.63	219.37	221.19	226.91	220.47	–
Durable goods	403.24	415.71	403.60	412.41	410.23	411.64	417.31	410.06	412.05	420.21	418.78	423.72	439.45	425.18	421.48
Lumber and wood products	320.40	326.36	309.85	317.56	317.58	325.61	336.19	325.54	333.70	337.39	334.92	327.06	335.27	327.89	323.31
Furniture and fixtures	271.95	283.29	270.59	277.85	276.83	275.16	281.46	276.53	285.19	290.14	292.40	292.13	304.14	291.46	287.39
Stone, clay, and glass products	401.94	411.88	393.09	404.91	411.60	415.52	418.20	418.35	418.49	420.75	418.06	413.82	414.50	412.51	405.37
Primary metal industries	478.30	484.72	478.12	481.56	480.73	479.57	486.97	485.34	480.32	487.47	480.65	491.57	504.38	495.26	499.03
Blast furnaces and basic steel products	527.39	548.69	544.85	540.09	547.45	543.05	552.86	559.31	550.84	554.14	545.61	557.76	565.32	564.30	570.87
Fabricated metal products	388.33	398.96	387.44	396.34	395.24	395.79	400.48	394.13	395.93	403.52	401.72	404.77	420.89	406.13	404.42
Machinery, except electrical	417.32	427.04	415.74	424.27	417.99	421.06	427.65	420.65	422.10	432.22	430.97	438.06	451.54	436.38	436.36
Electrical and electronic equipment	370.64	384.48	373.20	383.11	376.00	377.48	385.02	376.91	383.80	387.73	388.14	396.89	408.50	395.38	389.76
Transportation equipment	521.79	542.72	524.15	537.59	538.04	539.30	539.32	531.30	531.30	544.43	545.28	550.41	578.56	554.70	542.69
Motor vehicles and equipment	558.01	584.64	559.37	576.79	586.92	587.38	579.79	574.00	566.95	586.33	586.86	590.78	626.95	598.25	586.52
Instruments and related products	365.51	376.79	369.87	374.01	368.96	372.50	376.07	370.76	373.41	381.41	377.29	384.09	400.35	385.22	383.76
Miscellaneous manufacturing	277.38	286.83	276.82	282.24	280.86	285.38	286.10	281.78	284.59	292.00	294.19	295.47	303.28	297.70	293.57
Nondurable goods	331.45	342.86	333.68	338.37	337.26	339.55	342.54	341.82	344.20	348.00	346.73	350.00	358.02	350.15	346.14
Food and kindred products	333.52	341.60	331.89	335.23	336.73	343.20	340.29	341.60	341.34	347.21	343.00	344.92	353.28	347.13	340.26
Tobacco manufactures	438.40	448.26	442.50	452.40	424.38	469.32	483.69	437.65	461.52	438.15	448.84	439.71	452.20	446.11	441.36
Textile mill products	257.75	266.39	254.10	258.96	257.28	260.52	266.93	258.23	270.14	275.40	276.48	279.75	283.45	278.80	272.52
Apparel and other textile products	202.02	208.00	202.35	206.85	203.20	205.98	209.19	206.34	207.32	209.88	210.86	212.18	215.18	213.01	206.48
Paper and allied products	448.67	466.34	451.14	454.33	458.82	460.10	463.97	465.86	465.89	473.06	472.40	477.20	490.40	478.07	474.10
Printing and publishing	356.26	365.31	358.08	362.30	360.00	358.08	358.45	360.69	369.74	373.98	369.53	373.76	384.12	368.86	367.64
Chemicals and allied products	464.25	484.78	476.10	478.68	481.01	480.17	484.99	482.56	483.39	487.81	486.38	496.44	504.48	496.93	493.73
Petroleum and coal products	586.89	603.72	594.58	601.77	595.56	583.80	596.52	606.10	605.77	620.49	620.27	610.20	621.41	614.18	600.36
Rubber and miscellaneous plastics products	345.69	350.58	343.44	347.71	346.83	345.61	350.20	346.72	346.36	351.41	350.58	356.01	366.24	358.48	357.11
Leather and leather products	209.76	217.09	207.28	212.43	215.50	218.04	221.54	218.63	216.92	219.41	216.58	219.79	221.54	217.19	212.49
TRANSPORTATION AND PUBLIC UTILITIES	437.73	448.37	440.66	441.73	441.78	441.73	449.40	448.33	454.86	457.34	452.67	457.02	460.52	454.72	458.63
WHOLESALE TRADE	345.86	358.36	352.20	353.82	354.82	357.59	360.99	359.68	358.90	362.00	357.98	361.62	366.99	361.68	360.19
RETAIL TRADE	176.40	177.31	174.31	175.52	175.22	177.91	179.39	180.27	179.07	177.90	175.52	175.80	180.00	174.53	173.92
FINANCE, INSURANCE, AND REAL ESTATE	278.13	288.65	286.47	286.47	285.74	284.23	291.77	285.68	286.77	292.29	290.40	291.41	298.74	297.11	304.51
SERVICES	250.59	260.76	256.56	256.56	257.21	257.68	261.03	260.17	260.50	263.71	263.71	264.87	267.65	267.16	268.79

– Data not available.
[p] = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

17. The Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	Feb. 1985	Dec. 1985	Jan. 1986[p]	Feb. 1986[p]	Feb. 1985	Oct. 1985	Nov. 1985	Dec. 1985	Jan. 1986	Feb. 1986[p]
PRIVATE SECTOR (in current dollars)	164.3	168.5	168.3	168.8	164.0	166.4	167.1	168.4	167.5	168.5
Mining[1]	178.4	181.7	180.8	180.7	–	–	–	–	–	–
Construction	149.9	151.0	149.4	149.4	150.8	149.4	148.9	150.5	149.3	150.3
Manufacturing	167.0	171.3	171.3	171.6	166.9	169.4	170.1	170.8	170.7	171.4
Transportation and public utilities	164.7	169.9	169.9	171.1	164.2	167.0	168.1	169.2	169.1	170.6
Wholesale trade[1]	170.2	173.9	172.9	173.2	–	–	–	–	–	–
Retail trade	155.9	157.6	157.7	158.0	155.4	156.7	157.4	158.9	157.1	157.6
Finance, insurance, and real estate[1]	170.2	176.0	175.9	178.1	–	–	–	–	–	–
Services	167.2	173.6	173.6	174.4	166.2	171.1	172.1	173.4	171.9	173.4
PRIVATE SECTOR (in constant dollars)	95.0	94.5	94.2	–	94.7	94.1	94.1	94.4	93.6	–

[1] This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.
– Data not available.
[p] = preliminary.
NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

18. Indexes of diffusion: industries in which employment increased, data seasonally adjusted

(In percent)

Time span and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span												
1984	67.3	72.7	66.8	67.3	60.5	64.3	65.7	58.1	48.4	66.5	55.1	63.5
1985	57.6	50.3	55.9	44.6	50.3	47.0	54.9	56.8	45.7	63.5	61.6	63.2
1986	p65.4	p51.6	–	–	–	–	–	–	–	–	–	–
Over 3-month span												
1984	78.1	75.9	77.6	68.9	69.7	67.0	65.4	60.3	60.0	58.5	67.0	60.0
1985	58.6	54.1	46.8	45.9	44.1	49.7	50.5	49.2	53.8	52.7	65.1	p67.8
1986	p63.5	–	–	–	–	–	–	–	–	–	–	–
Over 6-month span												
1984	79.2	77.8	77.3	75.4	69.2	64.9	63.2	64.1	67.0	59.7	57.6	60.3
1985	52.2	49.5	44.3	44.6	44.3	42.4	46.8	50.0	56.8	p61.6	p58.1	–
1986	–	–	–	–	–	–	–	–	–	–	–	–
Over 12-month span												
1984	81.9	78.4	76.8	75.1	72.7	73.0	70.0	65.7	63.5	60.5	56.2	51.9
1985	50.8	48.4	49.5	47.3	46.2	47.3	p48.6	p48.4	–	–	–	–
1986	–	–	–	–	–	–	–	–	–	–	–	–

– Data not available.

NOTE: Figures are the percent of industries with employment rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

p = preliminary

19. Annual data: Employment status of the noninstitutional population

(Numbers in thousands)

Employment status	1977	1978	1979	1980	1981	1982	1983	1984	1985
Noninstitutional population	160,689	163,541	166,460	169,349	171,775	173,939	175,891	178,080	179,912
Labor force									
Total (number)	100,665	103,882	106,559	108,544	110,315	111,872	113,226	115,241	117,167
Percent of population	62.6	63.5	64.0	64.1	64.2	64.3	64.4	64.7	65.1
Employed									
Total (number)	93,673	97,679	100,421	100,907	102,042	101,194	102,510	106,702	108,856
Percent of population	58.3	59.7	60.3	59.6	59.4	58.2	58.3	59.9	60.5
Resident Armed Forces	1,656	1,631	1,597	1,604	1,645	1,688	1,676	1,697	1,706
Civilian									
Total	92,017	96,048	98,824	99,303	100,397	99,526	100,834	105,005	107,150
Agriculture	3,283	3,387	3,347	3,364	3,368	3,401	3,383	3,321	3,179
Nonagricultural industries	88,734	92,661	95,477	95,938	97,030	96,125	97,450	101,685	103,971
Unemployed									
Total (number)	6,991	6,202	6,137	7,637	8,273	10,678	10,717	8,539	8,312
Percent of labor force	6.9	6.0	5.8	7.0	7.5	9.5	9.5	7.4	7.1
Not in labor force (number)	60,025	59,659	59,900	60,806	61,460	62,067	62,665	62,839	62,744

20. Annual data: Employment levels by industry

(Numbers in thousands)

Industry	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total employment	82,471	86,697	89,823	90,406	91,156	89,566	90,196	94,461	97,699
Private sector	67,344	71,026	73,876	74,166	75,126	73,729	74,330	78,477	81,404
Goods-producing	24,346	25,585	26,461	25,658	25,497	23,813	23,334	24,730	25,057
Mining	813	851	958	1,027	1,139	1,128	952	974	969
Construction	3,851	4,229	4,463	4,346	4,188	3,905	3,948	4,345	4,662
Manufacturing	19,682	20,505	21,040	20,285	20,170	18,781	18,434	19,412	19,426
Service-producing	58,125	61,113	63,363	64,748	65,659	65,753	66,862	69,731	72,643
Transportation and public utilities	4,713	4,923	5,136	5,146	5,165	5,082	4,954	5,171	5,300
Wholesale trade	4,708	4,969	5,204	5,275	5,358	5,278	5,268	5,550	5,769
Retail trade	13,808	14,573	14,989	15,035	15,189	15,179	15,613	16,584	17,425
Finance, insurance, and real estate	4,467	4,724	4,975	5,160	5,298	5,341	5,468	5,682	5,924
Services	15,303	16,252	17,112	17,890	18,619	19,036	19,694	20,761	21,930
Government	15,127	15,672	15,947	16,241	16,031	15,837	15,869	15,984	16,295
Federal	2,727	2,753	2,773	2,866	2,772	2,739	2,774	2,807	2,875
State	3,377	3,474	3,541	3,610	3,640	3,640	3,662	3,712	3,780
Local	9,023	9,446	9,633	9,765	9,619	9,458	9,434	9,465	9,640

NOTE: Data include Alaska and Hawaii beginning in 1959. See "Notes on the data" for a description of the most recent benchmark revision.

21. Annual data: Average hours and earnings of production or nonsupervisory workers on nonagricultural payrolls, by industry

Industry	1977	1978	1979	1980	1981	1982	1983	1984	1985
Private sector									
Average weekly hours	36.0	35.8	35.7	35.3	35.2	34.8	35.0	35.3	35.1
Average hourly earnings	5.25	5.69	6.16	6.66	7.25	7.68	8.02	8.33	8.58
Average weekly earnings	189.00	203.70	219.91	235.10	255.20	267.26	280.70	294.05	301.16
Mining									
Average weekly hours	43.4	43.4	43.0	43.3	43.7	42.7	42.5	43.3	43.4
Average hourly earnings	6.94	7.67	8.49	9.17	10.04	10.77	11.28	11.63	11.95
Average weekly earnings	301.20	332.88	365.07	397.06	438.75	459.88	479.40	503.58	518.63
Construction									
Average weekly hours	36.5	36.8	37.0	37.0	36.9	36.7	37.1	37.7	37.7
Average hourly earnings	8.10	8.66	9.27	9.94	10.82	11.63	11.94	12.12	12.26
Average weekly earnings	295.65	318.69	342.99	367.78	399.26	426.82	442.97	456.92	462.20
Manufacturing									
Average weekly hours	40.3	40.4	40.2	39.7	39.8	38.9	40.1	40.7	40.5
Average hourly earnings	5.68	6.17	6.70	7.27	7.99	8.49	8.83	9.18	9.52
Average weekly earnings	228.90	249.27	269.34	288.62	318.00	330.26	354.08	373.63	385.56
Transportation and public utilities									
Average weekly hours	39.9	40.0	39.9	39.6	39.4	39.0	39.0	39.4	39.4
Average hourly earnings	6.99	7.57	8.16	8.87	9.70	10.32	10.79	11.11	11.38
Average weekly earnings	278.90	302.80	325.58	351.25	382.18	402.48	420.81	437.73	448.37
Wholesale trade									
Average weekly hours	38.8	38.8	38.8	38.5	38.5	38.3	38.5	38.6	38.7
Average hourly earnings	5.39	5.88	6.39	6.96	7.56	8.09	8.55	8.96	9.26
Average weekly earnings	209.13	228.14	247.93	267.96	291.06	309.85	329.18	345.86	358.36
Retail trade									
Average weekly hours	31.6	31.0	30.6	30.2	30.1	29.9	29.8	30.0	29.7
Average hourly earnings	3.85	4.20	4.53	4.88	5.25	5.48	5.74	5.88	5.97
Average weekly earnings	121.66	130.20	138.62	147.38	158.03	163.85	171.05	176.40	177.31
Finance, insurance, and real estate									
Average weekly hours	36.4	36.4	36.2	36.2	36.3	36.2	36.2	36.5	36.4
Average hourly earnings	4.54	4.89	5.27	5.79	6.31	6.78	7.29	7.62	7.93
Average weekly earnings	165.26	178.00	190.77	209.60	229.05	245.44	263.90	278.13	288.65
Services									
Average weekly hours	33.0	32.8	32.7	32.6	32.6	32.6	32.7	32.8	32.8
Average hourly earnings	4.65	4.99	5.36	5.85	6.41	6.92	7.31	7.64	7.95
Average weekly earnings	153.45	163.67	175.27	190.71	208.97	225.59	239.04	250.59	260.76

22. Employment Cost Index, compensation,[1] by occupation and industry group

(June 1981=100)

Series	1983	1984				1985				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec., 1985	
Civilian workers[2]	117.8	119.8	120.8	122.4	123.9	125.5	126.4	128.4	129.2	0.6	4.3
Workers, by occupational group:											
White-collar workers	118.9	120.9	122.1	124.0	125.5	127.3	128.3	130.7	131.6	.7	4.9
Blue-collar workers	115.8	117.7	118.6	119.6	120.9	122.2	123.1	124.4	124.9	.4	3.3
Service workers	119.1	122.0	122.1	124.6	126.8	127.8	128.0	130.9	131.8	.7	3.9
Workers, by industry division:											
Manufacturing	116.0	117.9	119.1	120.4	122.0	123.9	124.6	125.5	126.0	.4	3.3
Nonmanufacturing	118.6	120.7	121.6	123.3	124.8	126.2	127.2	129.7	130.6	.7	4.6
Services	122.6	125.0	125.5	128.8	130.9	131.9	132.6	136.4	137.1	.5	4.7
Public administration[3]	121.4	122.9	123.7	126.9	128.6	130.1	130.3	134.2	134.8	.4	4.8
Private industry workers	117.0	119.0	120.1	121.1	122.7	124.2	125.2	126.8	127.5	.6	3.9
Workers, by occupational group:											
White-collar workers	117.9	119.9	121.4	122.4	123.9	125.8	127.1	128.8	129.8	.8	4.8
Blue-collar workers	115.7	117.5	118.4	119.3	120.6	121.9	122.8	124.0	124.4	.3	3.2
Service workers	117.9	121.5	121.2	123.2	125.7	126.3	126.5	128.8	129.5	.5	3.0
Workers, by industry division:											
Manufacturing	116.0	117.9	119.1	120.4	122.0	123.9	124.6	125.5	126.0	.4	3.3
Nonmanufacturing	117.5	119.6	120.7	121.6	123.1	124.4	125.6	127.6	128.4	.6	4.3
State and local government workers	122.0	123.9	124.4	128.8	130.1	131.7	132.0	136.5	137.5	.7	5.7
Workers, by occupational group:											
White-collar workers	122.6	124.5	125.0	129.7	131.1	132.5	132.9	137.6	138.6	.7	5.7
Blue-collar workers	119.2	121.9	122.3	125.0	125.9	128.1	128.5	131.9	132.7	.6	5.4
Workers, by industry division:											
Services	122.6	124.5	125.0	129.9	131.3	132.8	133.2	137.9	139.1	.9	5.9
Schools	122.6	124.5	124.7	130.6	132.0	133.4	133.7	139.1	140.3	.9	6.3
Elementary and secondary	123.9	125.4	125.7	132.1	133.5	134.4	134.6	140.9	142.0	.8	6.4
Hospitals and other services[4]	122.6	124.4	125.7	127.9	129.2	131.1	131.5	134.1	135.2	.8	4.6
Public administration[3]	121.4	122.9	123.7	126.9	128.6	130.1	130.3	134.2	134.8	.4	4.8

[1] Cost (cents-per-hour worked) measured in the Employment Cost Index consists of wages, salaries and employer cost of employee benefits.

[2] Consist of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[3] Consists of legislative, judicial, administrative, and regulatory activities.

[4] Includes, for example, library, social, and health services.

23. Employment Cost Index, wages and salaries, by occupation and industry group

(June 1981 = 100)

Series	1983	1984				1985				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec., 1985	
Civilian workers [1]	116.5	117.9	118.8	120.3	121.7	123.1	124.2	126.3	127.0	0.6	4.4
Workers, by occupational group:											
White-collar workers	117.9	119.3	120.4	122.2	123.5	125.2	126.4	128.8	129.8	.8	5.1
Blue-collar workers	114.0	115.3	116.1	117.0	118.2	119.3	120.5	122.0	122.3	.2	3.5
Service workers	117.4	120.0	119.8	122.3	124.3	124.8	125.3	128.0	128.6	.5	3.5
Workers, by industry division											
Manufacturing	114.5	115.7	116.8	118.0	119.5	121.0	122.3	123.2	123.8	.5	3.6
Nonmanufacturing	117.4	118.9	119.7	121.3	122.6	123.9	125.0	127.6	128.4	.6	4.7
Services	121.3	123.3	123.8	127.2	128.9	129.7	130.5	134.2	134.8	.4	4.6
Public administration [2]	119.4	120.4	121.3	124.4	125.7	127.0	127.2	131.4	132.0	.5	5.0
Private industry workers	115.8	117.2	118.2	119.2	120.6	122.0	123.3	124.9	125.6	.6	4.1
Workers, by occupational group:											
White-collar workers	117.2	118.5	119.9	120.9	122.3	124.0	125.5	127.3	128.3	.8	4.9
Professional and technical	120.4	122.2	123.8	125.2	127.3	127.7	128.7	131.2	131.5	.2	3.3
Managers and administrators	115.7	118.0	119.2	121.0	122.2	123.8	126.5	127.7	128.4	.5	5.1
Salesworkers	111.2	110.2	111.9	110.5	111.6	116.3	117.4	119.3	122.5	2.7	9.8
Clerical workers	118.3	119.8	120.7	122.0	122.9	124.7	125.6	127.1	127.9	.6	4.1
Blue-collar workers	113.9	115.1	115.9	116.7	118.0	119.1	120.3	121.7	122.0	.2	3.4
Craft and kindred workers	115.4	116.5	117.3	118.0	119.4	120.8	122.0	123.7	123.8	.1	3.7
Operatives, except transport	113.6	114.9	115.8	116.6	117.9	118.9	120.1	121.1	121.6	.4	3.1
Transport equipment operatives	110.2	111.7	112.7	113.4	114.0	114.5	115.7	117.7	117.8	.1	3.3
Nonfarm laborers	112.1	112.9	114.1	114.7	115.9	116.7	118.5	118.6	119.8	1.0	3.4
Service workers	116.5	119.8	119.3	121.2	123.7	123.8	124.4	126.3	126.6	.2	2.3
Workers, by industry division:											
Manufacturing	114.5	115.7	116.8	118.0	119.5	121.0	122.3	123.2	123.8	.5	3.6
Durables	114.4	115.7	116.6	117.7	119.1	120.6	122.0	122.7	123.4	.6	3.6
Nondurables	114.6	115.8	117.1	118.6	120.2	121.6	122.6	124.0	124.6	.5	3.7
Nonmanufacturing	116.5	118.0	119.0	119.9	121.2	122.6	123.9	125.9	126.6	.6	4.5
Construction	112.9	113.3	114.0	114.3	114.4	115.5	116.6	117.3	117.9	.5	3.1
Transportation and public utilities	116.8	118.5	119.3	119.9	120.7	121.7	122.8	124.8	125.2	.3	3.7
Wholesale and retail trade	112.3	114.3	116.0	116.5	118.1	118.8	121.1	122.7	123.7	.8	4.7
Wholesale trade	116.5	118.2	120.0	120.7	122.9	123.7	126.8	127.7	128.3	.5	4.4
Retail trade	110.6	112.8	114.4	114.9	116.2	116.9	118.9	120.8	121.9	.9	4.9
Finance, insurance, and real estate	116.9	116.1	116.9	115.3	115.8	122.0	121.7	124.1	126.5	1.9	9.2
Services	121.9	124.2	124.7	127.1	129.5	129.9	131.0	133.9	134.1	.1	3.6
State and local government workers	120.0	121.6	122.0	126.1	127.1	128.4	128.7	133.2	134.2	.8	5.6
Workers, by occupational group											
White-collar workers	120.6	122.2	122.5	127.1	128.0	129.3	129.6	134.3	135.3	.7	5.7
Blue-collar workers	116.9	119.1	119.6	121.9	122.5	124.2	124.5	127.9	128.4	.4	4.8
Workers, by industry division											
Services	120.6	122.2	122.5	127.2	128.1	129.4	129.7	134.5	135.6	.8	5.9
Schools	120.6	122.2	122.3	127.8	128.7	129.9	130.2	135.8	137.0	.9	6.4
Elementary and secondary	121.7	122.9	123.0	129.3	130.2	130.8	131.1	137.5	138.5	.7	6.4
Hospitals and other services [3]	120.6	121.9	123.1	125.1	125.9	127.7	128.0	130.2	130.9	.5	4.0
Public administration [2]	119.4	120.4	121.3	124.4	125.7	127.0	127.2	131.4	132.0	.5	5.0

[1] Consists of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

[2] Consists of legislative, judicial, administrative, and regulatory activities.

[3] Includes, for example, library, social and health services.

24. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size

(June 1981=100)

Series	1983	1984				1985				Percent change	
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	3 months ended	12 months ended
										Dec., 1985	
COMPENSATION											
Workers, by bargaining status[1]											
Union	118.8	120.6	121.7	122.6	123.9	124.8	125.5	126.5	127.1	0.5	2.6
Manufacturing	117.2	119.3	120.5	121.6	123.2	124.2	124.2	125.0	125.5	.4	1.9
Nonmanufacturing	120.4	121.9	122.8	123.6	124.5	125.3	126.6	127.8	128.6	.6	3.3
Nonunion	115.9	118.0	119.2	120.3	121.9	123.8	125.0	126.8	127.5	.6	4.6
Manufacturing	114.9	116.6	117.9	119.3	120.8	123.6	124.8	125.7	126.3	.5	4.6
Nonmanufacturing	116.4	118.6	119.8	120.7	122.4	123.9	125.1	127.3	128.1	.6	4.7
Workers, by region [1]											
Northeast	117.5	118.9	120.7	122.4	123.8	125.1	126.4	128.8	129.9	.9	4.9
South	117.1	119.7	120.7	120.7	122.2	124.2	125.2	126.5	127.2	.6	4.1
Midwest (formerly North Central)	114.7	117.2	117.9	119.7	120.8	122.0	122.7	124.2	124.6	.3	3.1
West	120.0	121.0	122.2	122.5	124.9	126.8	127.9	129.1	129.8	.5	3.9
Workers, by area size [1]											
Metropolitan areas	117.4	119.4	120.6	121.5	123.2	124.7	125.7	127.3	128.1	.6	4.0
Other areas	114.5	116.7	117.4	119.0	119.8	121.4	122.5	123.9	123.9	.0	3.4
WAGES AND SALARIES											
Workers, by bargaining status [1]											
Union	116.9	118.1	119.0	119.8	120.9	121.7	123.0	124.1	124.7	.5	3.1
Manufacturing	114.8	116.1	117.1	118.1	119.5	120.4	121.7	122.8	123.3	.4	3.2
Nonmanufacturing	118.9	120.1	120.7	121.3	122.1	122.8	124.1	125.3	125.9	.5	3.1
Nonunion	115.2	116.7	117.8	118.8	120.4	122.1	123.4	125.2	125.9	.6	4.6
Manufacturing	114.2	115.4	116.5	117.9	119.5	121.5	122.8	123.7	124.4	.6	4.1
Nonmanufacturing	115.6	117.2	118.3	119.2	120.7	122.3	123.6	125.9	126.6	.6	4.9
Workers, by region [1]											
Northeast	116.6	117.4	118.9	120.5	121.9	123.0	124.6	126.8	128.1	1.0	5.1
South	115.7	117.9	119.0	119.0	120.2	122.3	123.4	124.8	125.4	.5	4.3
Midwest (formerly North Central)	113.6	115.5	116.0	117.8	118.7	119.6	121.1	122.5	122.9	.3	3.5
West	118.5	118.8	119.6	120.0	122.5	124.0	125.1	126.6	127.1	.4	3.8
Workers, by area size[1]											
Metropolitan areas	116.2	117.6	118.6	119.5	121.0	122.4	123.8	125.5	126.3	.6	4.4
Other areas	113.4	115.1	116.0	117.5	118.3	119.6	120.6	121.9	122.0	.1	3.1

[1] The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the *Monthly Labor Review* Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more (in percent)

Measure	Annual average		Quarterly average							
			1984				1985			
	1984	1985	I	II	III	IV	I	IIp	IIIp	IVp
Specified adjustments:										
Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more:										
First year of contract	3.6	2.6	5.1	3.5	2.7	3.7	3.6	3.5	2.0	2.0
Annual rate over life of contract	2.8	2.7	4.7	3.2	3.1	2.0	2.7	3.4	3.0	1.4
Wage adjustments, settlements covering 1,000 workers or more:										
First year of contract	2.4	2.3	2.8	2.6	2.1	2.3	3.3	2.5	2.0	2.1
Annual rate over life of contract	2.4	2.7	3.3	2.7	2.6	1.5	3.2	2.8	3.1	1.9
Effective adjustments:										
Total effective wage adjustment [3]	3.7	3.3	.9	.9	1.2	.7	.8	.8	1.2	.5
From settlements reached in period	.8	.7	.1	.1	.2	.3	.1	.2	.2	.2
Deferred from settlements reached in earlier periods	2.0	1.8	.4	.7	.7	.2	.6	.5	.6	.2
From cost-of-living-adjustments clauses	.9	.8	.3	.2	.3	.2	.1	.1	.4	.1

[1] Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

[2] Adjustments are the net result of increases, decreases and no changes in compensation or wages.

[3] Because of rounding total may not equal sum of parts.

p = preliminary.

26. Average specified compensation and wage adjustments, major collective bargaining settlements in private industry situations covering 1,000 workers or more during 4-quarter periods (in percent)

Measure	Average for four quarters ending--							
	1984				1985			
	I	II	III	IV	I	IIp	IIIp	IVp
Specified total compensation adjustments, settlements covering 5,000 workers or more, all industries:								
First year of contract	4.8	4.7	4.2	3.6	3.4	3.5	3.1	(1)
Annual rate over life of contract	3.6	3.5	3.2	2.8	2.6	2.7	2.7	2.8
Specified wage adjustments, settlements covering 1,000 workers or more:								
All industries	3.5	3.5	3.2	2.4	2.4	2.4	2.4	2.3
First year of contract	4.0	4.6	4.5	2.9	2.5	2.3	1.9	1.6
Contracts with COLA clauses	3.0	2.7	2.3	2.1	2.4	2.4	2.7	2.7
Contracts without COLA clauses	3.0	3.1	2.8	2.4	2.3	2.4	2.5	2.7
Annual rate over life of contract	2.6	2.9	2.8	1.8	1.3	1.5	1.8	2.5
Contracts with COLA clauses	3.4	3.2	2.8	2.7	2.8	2.8	3.0	2.8
Contracts without COLA clauses								
Manufacturing	2.6	3.0	2.6	2.3	2.1	2.0	1.5	.8
First year of contract	2.4	3.2	1.5	2.1	2.0	1.9	1.5	.8
Contracts with COLA clauses	2.9	2.8	3.7	2.9	2.5	2.2	1.5	.9
Contracts without COLA clauses	2.8	3.1	2.8	1.5	1.4	1.5	1.6	1.8
Annual rate over life of contract	2.2	2.8	1.8	1.0	.9	1.0	1.4	2.1
Contracts with COLA clauses	3.7	3.6	3.8	3.3	3.2	3.0	2.4	1.6
Contracts without COLA clauses								
Nonmanufacturing	3.8	3.7	3.3	2.5	2.6	2.7	3.2	3.3
First year of contract	4.9	5.2	5.4	5.5	5.1	4.3	4.0	3.6
Contracts with COLA clauses	3.0	2.6	2.1	2.0	2.4	2.5	3.0	3.3
Contracts without COLA clauses	3.1	3.0	2.8	2.9	2.8	2.9	3.3	3.3
Annual rate over life of contract	2.9	3.0	3.1	4.8	4.0	3.8	3.9	3.6
Contracts with COLA clauses	3.3	3.0	2.6	2.6	2.7	2.8	3.2	3.3
Contracts without COLA clauses								
Construction	1.2	.8	.9	.5	.9	1.1	1.0	1.5
First year of contract	.1	-.4	4.0	4.0	4.6	9.2	(1)	(1)
Contracts with COLA clauses	1.4	.9	.9	.4	.8	1.0	(1)	(1)
Contracts without COLA clauses	2.0	1.7	1.4	1.0	1.4	1.7	1.7	2.1
Annual rate over life of contract	.7	.0	1.4	1.4	1.7	4.6	(1)	(1)
Contracts with COLA clauses	2.2	1.8	1.4	1.0	1.4	1.7	(1)	(1)
Contracts without COLA clauses								

[1] Data do not meet publication standards.

p = preliminary

27. Average effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more during 4-quarter periods (in percent)

Effective wage adjustment	Average for four quarters ending--						
	1984			1985			
	II	III	IV	I	II[p]	III[p]	IV[p]
For all workers:[1]							
Total	4.3	4.2	3.7	3.6	3.5	3.5	3.3
From settlements reached in period	1.0	1.0	.8	.7	.9	.9	.7
Deferred from settlements reached in earlier period	2.2	2.1	2.0	2.2	1.9	1.8	1.8
From cost-of-living-adjustments clauses	1.1	1.2	.9	.7	.7	.8	.8
For workers receiving changes:							
Total	5.3	5.0	4.4	4.5	4.2	4.3	4.1
From settlements reached in period	3.6	3.7	3.0	2.9	2.9	2.8	3.4
Deferred from settlements reached in earlier period	4.9	4.2	4.0	4.2	3.9	3.7	3.7
From cost-of-living-adjustments clauses	4.0	3.2	2.7	2.3	2.3	2.8	2.2

[1] Because of rounding total may not equal sum of parts.

[p] = preliminary.

28. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, State and local government collective bargaining situations covering 1,000 workers or more (in percent)

Measure	Annual average		Second 6 months 1985[p]
	1984	1985	
Specified adjustments:			
Total compensation [1] adjustments, [2] settlements covering 5,000 workers or more:			
First year of contract	5.2	4.2	3.8
Annual rate over life of contract	5.4	5.2	5.3
Wage adjustments, settlements covering 1,000 workers or more:			
First year of contract	4.8	4.6	4.4
Annual rate over life of contract	5.1	5.4	5.6
Effective adjustments:			
Total effective wage adjustment [3]	5.0	5.8	4.1
From settlements reached in period	1.9	4.1	3.2
Deferred from settlements reached in earlier periods	3.1	1.6	.9
From cost-of-living-adjustment clauses	([4])	([4])	([4])

[1] Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

[2] Adjustments are the net result of increases, decreases and no changes in compensation or wages.

[3] Because of rounding total may not equal sum of parts.

[4] Less than 0.05 percent.

[p] = preliminary.

29. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.[p]	Oct.[p]	Nov.[p]	Dec.[p]	Jan.[p]	Feb.[p]
Number of stoppages:															
Beginning in period	62	-	4	4	3	2	2	9	6	11	4	2	2	-	-
In effect during period	68	-	13	12	8	8	8	13	18	20	18	11	8	-	-
Workers involved:															
Beginning in period (in thousands)	376.0	-	29.3	15.2	6.2	6.9	15.7	52.3	15.3	69.5	74.6	25.0	8.2	-	-
In effect during period (in thousands)	391.0	-	43.9	48.2	14.1	14.8	28.5	60.2	66.8	93.9	117.3	64.6	38.1	-	-
Days idle:															
Number (in thousands)	8,499.0	-	259.3	698.5	229.5	203.3	454.3	500.2	869.7	931.4	1,433.0	651.2	665.4	-	-
Percent of estimated working time[1]	.04	-	.01	.03	.01	.01	.02	.02	.03	.04	.06	.03	.03	-	-

[1] Agricultural and government employees are included in the total employed and total working time: private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in 'Total Economy' Measure of Strike idleness.*Monthly Labor Review,* October 1968, pp. 54-56.

- Data not available.

[p] = preliminary

30. Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

Series	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:															
All items	311.1	322.2	317.4	318.8	320.1	321.3	322.3	322.8	323.5	324.5	325.5	326.6	327.4	328.4	327.5
All items (1957-59=100)	361.9	374.7	369.1	370.7	372.3	373.7	374.8	375.5	376.2	377.4	378.5	379.9	380.8	381.9	380.8
Food and beverages	295.1	302.0	301.4	301.6	301.6	301.0	301.4	301.6	301.8	302.1	302.5	303.6	305.6	307.9	307.7
Food	302.9	309.8	309.5	309.7	309.6	308.9	309.3	309.5	309.7	309.9	309.8	311.0	313.2	315.6	315.3
Food at home	292.6	296.8	298.6	298.4	297.7	296.2	296.0	296.2	295.9	295.6	295.3	296.6	299.3	302.5	301.5
Cereals and bakery products	305.3	317.0	313.7	314.4	314.8	315.9	317.3	317.3	318.5	319.2	318.9	319.9	321.9	322.0	322.5
Meats, poultry, fish, and eggs	266.6	263.4	267.0	266.1	263.6	259.8	259.8	260.5	259.7	260.6	261.1	266.1	269.9	271.5	268.4
Dairy products	253.2	258.0	259.2	258.9	258.3	258.4	257.8	257.8	257.4	258.0	257.1	257.1	256.9	257.2	257.3
Fruits and vegetables	317.4	325.7	333.0	332.1	333.2	330.3	329.0	328.9	326.3	319.9	317.1	314.3	323.9	334.4	320.7
Other foods at home	352.2	361.1	359.8	360.5	360.8	361.3	360.8	360.6	361.7	362.6	363.0	362.2	361.3	365.7	375.1
Sugar and sweets	389.1	398.8	394.8	394.8	396.1	397.6	398.3	400.2	401.8	401.1	402.6	401.4	402.2	405.1	408.6
Fats and oils	288.0	294.4	295.1	294.9	294.0	294.0	296.0	297.8	297.1	294.8	291.2	292.1	290.3	292.1	291.4
Nonalcoholic beverages	443.0	451.7	452.7	454.0	454.0	454.1	451.5	448.2	449.6	452.8	454.1	451.7	448.8	459.7	485.3
Other prepared foods	284.9	294.2	291.5	292.2	292.8	293.4	293.4	294.5	295.8	296.3	296.8	296.8	297.3	298.0	299.5
Food away from home	333.4	346.6	341.4	342.6	343.9	345.1	346.9	347.3	348.4	349.9	350.3	351.3	352.1	353.1	354.2
Alcoholic beverages	222.1	229.5	225.8	226.5	226.7	227.7	227.8	227.8	228.9	229.3	236.4	236.2	236.2	237.5	238.3
Housing	336.5	349.9	343.6	344.7	345.9	348.5	350.4	351.6	352.9	353.8	354.4	355.0	355.8	356.8	356.5
Shelter	361.7	382.0	373.3	374.3	375.9	379.5	381.0	383.2	385.9	386.9	389.1	391.3	392.3	393.8	394.8
Renters' costs (12/82=100)	108.6	115.4	112.4	112.9	113.5	114.5	115.1	115.8	116.6	117.0	117.9	118.4	118.3	118.8	119.0
Rent, residential	249.3	264.6	258.4	259.2	260.4	262.6	263.6	265.0	266.6	267.7	269.9	271.7	272.4	273.4	273.7
Other renters' costs	373.4	398.4	381.9	386.1	390.9	396.5	401.6	405.1	409.9	410.7	412.5	408.7	398.1	401.1	404.1
Homeowners' costs (12/82=100)	107.3	113.1	110.7	110.8	111.3	112.4	112.8	113.5	114.3	114.6	115.1	115.8	116.3	116.7	117.0
Owners' equivalent rent (12/82=100)	107.3	113.2	110.7	110.9	111.3	112.5	112.8	113.5	114.3	114.6	115.1	115.9	116.3	116.7	117.0
Household insurance (12/82=100)	107.5	112.4	109.5	110.4	111.4	112.0	112.7	112.7	113.0	113.7	114.6	114.5	115.0	115.7	117.4
Maintenance and repairs	359.2	368.9	366.8	370.0	368.0	366.2	367.6	367.8	370.6	368.7	368.5	372.7	373.7	379.1	379.6
Maintenance and repair services	409.7	421.1	415.8	422.2	418.2	416.0	423.2	421.1	425.1	421.9	422.2	426.4	426.2	432.6	432.8
Maintenance and repair commodities	262.7	269.6	270.5	270.6	270.4	269.2	265.7	267.8	269.2	268.6	268.0	271.5	273.3	277.1	277.8
Fuel and other utilities	387.3	393.6	386.5	388.2	388.7	393.0	399.4	399.9	398.9	400.5	395.6	392.1	393.3	394.6	390.0
Fuels	485.5	488.1	480.8	482.2	483.0	490.0	497.7	497.3	494.4	496.8	488.4	481.5	483.6	484.7	476.3
Fuel oil, coal, and bottled gas	641.8	619.5	623.4	620.8	623.5	620.8	612.0	601.9	594.6	601.7	615.3	641.6	657.3	650.3	591.2
Gas (piped) and electricity	445.2	452.7	443.3	445.5	445.9	454.7	465.6	467.1	465.1	466.5	453.9	440.5	439.9	442.6	444.5
Other utilities and public services	230.2	240.7	234.3	236.3	236.4	236.8	241.1	242.8	244.2	244.6	244.7	245.9	245.8	247.3	247.9
Household furnishings and operations	242.5	247.2	246.2	246.9	247.9	247.6	247.1	246.5	247.0	247.1	248.4	248.9	248.8	248.8	249.0
Housefurnishings	199.1	200.1	200.7	200.6	201.7	201.2	200.0	198.8	199.1	199.0	200.3	200.8	200.1	199.8	199.7
Housekeeping supplies	303.2	313.6	311.5	311.8	312.6	312.9	313.6	313.1	313.5	313.9	315.7	316.4	317.7	318.3	318.6
Housekeeping services	327.5	338.9	333.9	337.4	337.9	338.0	338.3	339.8	340.7	341.5	342.2	342.7	343.2	343.9	344.5
Apparel and upkeep	200.2	206.0	201.8	205.3	205.9	205.3	204.6	202.8	205.3	209.6	211.1	211.2	209.0	205.0	204.1
Apparel commodities	187.0	191.6	187.5	191.3	191.8	191.0	190.2	188.0	190.6	195.3	196.7	196.8	194.2	189.5	188.5
Men's and boys' apparel	192.4	197.9	192.8	195.2	197.4	197.8	196.4	194.5	197.2	201.5	203.2	203.6	202.0	198.6	196.8
Women's and girls' apparel	163.6	169.5	164.1	169.9	170.0	168.0	166.5	163.4	167.7	176.1	177.9	176.5	172.6	164.4	163.4
Infants' and toddlers' apparel	287.0	299.7	298.8	302.1	295.3	298.3	300.7	294.5	300.6	302.0	302.1	307.0	304.1	313.9	311.6
Footwear	209.5	212.1	210.1	213.1	213.2	213.2	213.9	211.4	210.3	210.9	212.3	215.5	213.1	209.1	207.9
Other apparel commodities	216.4	215.5	215.5	216.9	215.8	215.1	216.3	216.7	217.5	215.2	214.9	214.9	214.6	215.5	216.1
Apparel services	305.0	320.9	316.0	317.1	318.4	319.4	319.9	321.4	322.9	324.1	325.7	326.3	326.9	329.8	330.7
Transportation	311.7	319.9	314.3	316.7	320.0	321.4	321.8	321.8	320.7	319.7	320.9	323.2	324.0	323.9	319.2
Private transportation	306.6	314.2	308.7	311.0	314.6	316.0	316.3	316.1	314.9	313.6	314.7	317.0	317.8	317.3	312.2
New vehicles	208.0	214.9	213.6	213.8	213.9	214.2	214.3	214.3	214.2	214.2	215.9	218.2	219.2	219.7	220.2
New cars	208.5	215.2	213.9	214.1	214.1	214.5	214.7	214.7	214.6	214.5	216.2	218.4	219.4	219.9	220.4
Used cars	375.7	379.7	384.6	386.1	386.4	384.2	380.3	376.7	374.0	374.3	375.3	376.4	375.6	374.1	370.7
Motor fuel	370.7	373.8	352.4	360.6	374.2	381.6	384.7	385.5	381.9	377.7	374.6	376.7	377.5	373.3	351.5
Gasoline	370.2	373.3	351.6	360.0	373.8	381.4	384.5	385.3	381.8	377.4	374.2	376.1	376.8	372.5	350.8
Maintenance and repair	341.5	351.4	348.2	348.5	348.2	349.6	350.4	351.1	351.9	353.5	355.7	355.8	357.5	357.9	358.9
Other private transportation	273.3	287.6	284.4	284.5	285.8	285.6	286.6	287.6	287.7	285.8	289.6	293.9	295.2	297.7	299.2
Other private transportation commodities	201.5	202.6	203.8	201.9	202.8	201.3	203.9	202.2	202.8	203.4	202.8	201.6	202.1	203.4	202.9
Other private transportation services	295.0	312.8	308.5	309.1	310.5	310.7	311.3	313.0	313.0	310.4	315.4	321.2	322.7	325.5	327.6
Public transportation	385.2	402.8	394.4	397.3	398.0	398.4	399.3	402.4	403.7	408.0	411.5	412.8	412.9	419.6	422.2
Medical care	379.5	403.1	393.8	396.5	398.0	399.5	401.7	404.0	406.6	408.3	410.5	413.0	414.7	418.2	422.3
Medical care commodities	239.7	256.7	249.8	251.9	253.9	255.2	257.0	257.8	259.3	260.2	261.3	262.7	262.9	264.5	267.4
Medical care services	410.3	435.1	425.3	428.1	429.4	430.9	433.0	435.8	438.6	440.5	443.0	445.8	448.0	451.9	456.2
Professional services	346.1	367.3	359.3	361.9	363.0	364.5	366.4	368.1	370.0	371.7	373.2	375.5	377.1	378.9	381.6
Other medical care services	488.0	517.0	505.2	508.0	509.6	511.2	513.6	517.6	521.6	523.9	527.4	530.8	533.6	540.3	546.4
Entertainment	255.1	265.0	261.3	262.2	263.3	263.6	264.8	265.7	265.7	266.8	268.4	269.0	268.3	270.8	272.0
Entertainment commodities	253.3	260.6	257.9	258.7	259.5	259.5	260.1	260.8	260.5	262.5	264.0	264.0	262.5	264.7	265.2
Entertainment services	258.3	271.8	266.7	267.6	269.2	269.9	272.0	273.3	273.6	273.3	275.2	276.6	277.1	279.9	282.1
Other goods and services	307.7	326.6	320.5	321.1	321.8	322.3	323.0	325.0	326.0	333.3	334.9	335.3	336.5	339.1	340.3
Tobacco products	310.0	328.5	323.2	323.7	324.0	324.1	324.8	330.0	331.5	332.8	334.4	334.7	337.4	342.7	344.7
Personal care	271.4	281.9	278.2	278.7	279.8	280.9	281.7	282.3	283.3	284.1	285.0	285.4	286.3	288.1	289.1
Toilet goods and personal care appliances	269.6	278.5	275.4	276.0	277.1	277.5	277.9	278.9	279.4	280.6	281.4	281.1	282.5	285.3	286.0
Personal care services	274.1	286.0	281.7	282.0	283.3	285.0	286.1	286.3	287.7	288.2	289.2	290.2	290.6	291.8	293.0
Personal and educational expenses	365.7	397.1	386.9	387.6	388.3	388.5	389.1	390.1	390.7	412.5	414.7	415.4	415.5	416.8	417.7
School books and supplies	322.8	350.8	343.8	343.9	344.5	344.5	344.9	345.5	346.1	362.1	364.5	364.7	364.7	371.0	373.8
Personal and educational services	375.6	407.7	396.9	397.8	398.5	398.8	399.4	400.4	401.1	423.9	426.2	426.9	427.0	427.6	428.1

See footnotes at end of table.

30. Continued— Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

Series	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
All items	311.1	322.2	317.4	318.8	320.1	321.3	322.3	322.8	323.5	324.5	325.5	326.6	327.4	328.4	327.5
Commodities	280.7	286.7	284.0	285.3	286.8	287.0	286.9	286.5	286.5	287.1	287.9	289.2	289.9	290.1	287.4
Food and beverages	295.1	302.0	301.4	301.6	301.6	301.0	301.4	301.6	301.8	302.1	302.5	303.6	305.6	307.9	307.7
Commodities less food and beverages	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Nondurables less food and beverages	275.7	282.1	274.7	277.9	281.5	283.1	283.5	282.9	283.1	284.6	285.3	286.8	286.8	284.9	278.6
Apparel commodities	187.0	191.6	187.5	191.3	191.8	191.0	190.2	188.0	190.6	195.3	196.7	196.8	194.2	189.5	188.5
Nondurables less food, beverages, and apparel	325.8	333.3	324.2	327.1	332.3	335.1	336.2	336.4	335.4	335.3	335.6	337.8	339.1	338.7	329.9
Durables	266.5	270.7	271.4	271.9	272.6	271.6	270.4	269.3	268.6	268.7	270.2	271.5	271.4	271.4	270.8
Services	363.0	381.5	373.5	375.0	376.2	378.9	381.3	383.3	384.9	386.5	387.7	388.7	389.5	391.7	393.3
Rent of shelter	107.7	113.9	111.3	111.5	112.0	113.2	113.6	114.3	115.1	115.4	116.1	116.7	117.0	117.4	117.7
Household services less rent of shelter	108.1	111.2	108.9	109.7	109.8	110.9	112.7	113.2	113.2	113.5	112.1	110.8	110.8	111.4	111.8
Transportation services	321.1	337.0	332.2	333.2	334.1	334.5	335.3	337.0	337.4	337.1	341.1	344.7	346.1	349.0	351.0
Medical care services	410.3	435.1	425.3	428.1	429.4	430.9	433.0	435.8	438.6	440.5	443.0	445.8	448.0	451.9	456.2
Other services	296.0	314.1	307.8	308.6	309.9	310.7	312.0	313.0	313.8	319.7	321.4	322.5	322.9	324.8	326.1
Special indexes:															
All items less food	311.3	323.3	317.4	319.1	320.8	322.4	323.6	324.2	325.0	326.2	327.4	328.5	328.9	329.5	328.5
All items less shelter	295.1	303.9	300.0	301.5	302.8	303.4	304.3	304.4	304.6	305.7	306.3	307.2	307.9	308.8	307.4
All items less homeowners' costs	106.3	109.7	108.2	108.7	109.2	109.5	109.8	109.9	110.1	110.4	110.7	111.1	111.3	111.6	111.2
All items less medical care	307.3	317.7	313.1	314.5	315.8	317.0	317.9	318.4	318.9	319.9	320.8	321.9	322.6	323.4	322.2
Commodities less food	267.0	272.5	268.6	270.6	272.8	273.4	273.1	272.4	272.3	273.1	274.4	275.7	275.7	274.7	270.9
Nondurables less food	270.8	277.2	270.2	273.2	276.5	278.0	278.4	277.9	278.1	279.6	280.7	282.0	282.0	280.4	274.5
Nondurables less food and apparel	311.9	319.2	310.8	313.5	318.1	320.7	321.7	321.9	321.1	321.0	322.0	324.0	325.1	324.9	316.6
Nondurables	286.6	293.2	289.2	291.0	292.7	293.3	293.7	293.5	293.7	294.6	295.1	296.4	297.4	297.7	294.3
Services less rent of shelter	108.5	113.5	111.3	111.9	112.2	112.8	113.7	114.2	114.5	115.0	115.1	115.2	115.4	116.2	116.6
Services less medical care	355.6	373.3	365.5	366.9	368.1	370.9	373.3	375.2	376.7	378.3	379.3	380.1	380.8	382.7	384.0
Energy	423.6	426.5	411.4	416.6	424.4	431.7	436.8	437.1	433.8	432.6	427.1	425.1	426.5	424.7	408.9
All items less energy	302.9	314.8	310.9	312.0	312.7	313.3	313.9	314.5	315.6	316.8	318.4	319.8	320.5	321.8	322.3
All items less food and energy	301.2	314.4	309.5	310.8	311.8	312.8	313.4	314.1	315.3	316.9	318.9	320.4	320.7	321.6	322.3
Commodities less food and energy	253.1	259.7	258.1	259.3	260.0	259.6	259.0	258.2	258.8	260.2	262.0	262.7	262.2	261.8	261.6
Energy commodities	409.8	409.9	391.3	398.3	410.8	417.0	418.7	418.1	414.0	411.2	410.1	415.2	417.9	413.2	386.5
Services less energy	356.4	375.9	368.0	369.4	370.7	372.9	374.6	376.6	378.6	380.2	382.5	384.8	385.8	387.9	389.4
Purchasing power of the consumer dollar:															
1967=$1.00	32.1	31.0	31.5	31.4	31.2	31.1	31.0	31.0	30.9	30.8	30.7	30.6	30.5	30.5	30.5
1957-59=$1.00	27.6	26.7	27.1	27.0	26.9	26.8	26.7	26.6	26.6	26.5	26.4	26.3	26.3	26.2	26.3
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:															
All items	307.6	318.5	313.9	315.3	316.7	317.8	318.7	319.1	319.6	320.5	321.3	322.6	323.4	324.3	323.2
All items (1957-59=100)	357.7	370.4	365.1	366.7	368.3	369.6	370.6	371.2	371.8	372.7	373.7	375.1	376.1	377.1	375.8
Food and beverages	295.2	301.8	301.2	301.6	301.4	300.8	301.2	301.4	301.6	301.8	302.2	303.4	305.4	307.7	307.5
Food	302.7	309.3	309.0	309.3	309.2	308.4	308.8	309.0	309.1	309.3	309.3	310.6	312.8	315.1	314.9
Food at home	291.2	295.3	297.0	296.9	296.1	294.6	294.5	294.6	294.3	294.0	293.7	295.2	297.9	300.9	300.1
Cereals and bakery products	303.7	315.4	311.9	312.7	313.1	314.1	315.7	315.7	316.8	317.6	317.3	318.2	320.4	320.4	320.9
Meats, poultry, fish, and eggs	266.0	262.7	266.3	265.6	262.9	259.2	259.3	259.7	259.0	259.9	260.4	265.4	269.2	270.7	267.7
Dairy products	252.2	256.9	258.3	257.8	257.2	257.3	256.7	256.6	256.3	256.8	255.9	255.9	255.7	256.0	256.0
Fruits and vegetables	312.5	320.3	327.1	326.8	328.1	324.8	323.5	323.9	320.6	313.6	311.2	309.4	319.3	329.7	316.0
Other foods at home	352.7	361.5	360.2	361.0	361.3	361.6	361.3	361.1	362.2	362.9	363.4	362.5	361.6	366.1	375.2
Sugar and sweets	388.6	398.3	394.4	394.2	395.5	396.9	398.0	399.8	401.4	400.8	402.2	400.9	401.8	404.7	408.1
Fats and oils	287.5	293.9	294.7	294.3	293.7	293.6	295.6	297.3	296.5	294.1	290.6	291.8	289.6	291.6	290.8
Nonalcoholic beverages	444.4	453.2	454.2	455.5	455.6	455.4	453.0	449.8	451.2	454.1	455.6	453.1	450.4	461.0	485.5
Other prepared foods	286.4	295.7	292.9	293.7	294.2	294.9	295.0	296.1	297.3	297.7	298.3	298.3	298.7	299.4	300.9
Food away from home	336.7	349.7	344.6	345.8	347.1	348.4	350.1	350.4	351.5	353.0	353.4	354.4	355.2	356.2	357.3
Alcoholic beverages	225.3	232.6	229.1	229.9	229.9	230.8	231.0	231.0	232.2	232.6	239.1	238.8	239.1	240.1	240.9
Housing	329.2	343.3	337.2	338.2	339.5	342.1	344.0	345.0	346.2	347.2	347.5	348.3	349.1	350.1	349.7
Shelter	350.0	370.4	362.0	363.0	364.7	368.1	369.5	371.5	374.0	375.0	377.1	379.3	380.4	381.8	382.9
Renters' costs (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Rent, residential	248.6	263.7	257.5	258.4	259.6	261.8	262.7	264.1	265.7	266.8	268.9	270.7	271.5	272.5	272.8
Other renters' costs	372.4	397.9	380.8	385.3	391.0	396.7	401.0	405.2	409.6	409.8	411.6	408.0	397.5	400.8	403.5
Homeowners' costs (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Owners' equivalent rent (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Household insurance (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Maintenance and repairs	356.3	364.1	361.5	364.3	363.1	361.8	362.9	363.4	365.6	364.4	364.6	367.7	368.5	373.2	374.0
Maintenance and repair services	403.5	415.0	408.8	414.8	411.7	410.1	417.0	415.3	419.6	416.8	417.4	420.9	420.1	426.2	426.5
Maintenance and repair commodities	257.2	261.1	261.1	261.6	261.6	260.7	258.4	260.0	260.6	260.5	260.5	262.7	264.2	267.2	268.1
Fuel and other utilities	388.6	394.7	387.5	389.2	389.7	393.8	400.9	401.2	400.1	401.9	396.3	393.2	394.3	395.6	390.9
Fuels	485.0	487.5	480.3	481.6	482.3	488.9	497.7	497.0	494.0	496.7	487.2	481.0	483.1	484.1	475.7
Fuel oil, coal, and bottled gas	644.3	622.0	625.7	623.1	625.9	623.2	614.3	604.2	596.9	604.3	618.1	644.3	659.9	652.7	593.6
Gas (piped) and electricity	444.1	451.6	442.3	444.4	444.6	453.0	465.1	466.3	464.2	465.9	452.0	439.5	438.8	441.4	443.2
Other utilities and public services	231.2	241.6	235.1	237.2	237.3	237.7	242.0	243.7	245.1	245.6	245.7	246.8	246.7	248.3	248.8
Household furnishings and operations	239.1	243.4	242.6	243.2	244.1	244.0	243.3	242.6	243.1	243.2	244.5	245.1	245.2	245.1	245.3
Housefurnishings	197.0	197.6	198.3	198.2	199.2	198.9	197.6	196.2	196.6	196.5	197.7	198.3	197.8	197.3	197.2
Housekeeping supplies	300.2	310.7	308.5	308.9	309.8	310.0	310.8	310.3	310.4	311.0	312.7	313.5	315.0	315.8	316.4
Housekeeping services	328.0	340.2	334.9	338.5	339.0	339.2	339.5	341.0	342.2	342.9	343.9	344.5	345.0	345.6	346.3
Apparel and upkeep	199.1	205.0	200.7	204.2	204.9	204.2	203.7	201.8	204.3	208.7	210.2	210.2	208.1	204.1	203.1

See footnotes at end of table.

0. Continued— Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity ervice group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

Series	Annual average		1985											1986	
	1984	1985	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Apparel commodities	186.6	191.3	187.2	190.9	191.5	190.7	190.0	187.8	190.4	195.1	196.6	196.5	194.1	189.4	188.2
Men's and boys' apparel	192.9	198.2	193.1	195.7	197.8	198.2	196.6	194.8	197.3	201.8	203.5	203.7	202.2	198.8	196.8
Women's and girls' apparel	165.0	171.3	165.8	171.5	172.0	169.7	168.4	165.5	169.9	178.2	180.0	178.3	174.5	166.1	165.2
Infants' and toddlers' apparel	297.6	311.7	310.1	314.5	306.4	310.6	313.5	306.4	311.2	314.9	314.8	320.7	317.3	332.7	328.6
Footwear	210.0	212.5	210.8	213.4	213.3	213.3	214.1	211.6	210.5	211.0	212.6	215.9	213.6	209.9	208.4
Other apparel commodities	204.5	203.1	203.0	204.2	203.3	202.7	204.0	204.5	205.2	202.5	202.4	202.5	202.4	203.5	204.2
Apparel services	302.9	318.5	313.6	314.7	316.1	317.0	317.6	319.0	320.5	321.6	323.2	323.6	324.4	327.2	328.1
Transportation	313.9	321.6	316.3	318.7	322.0	323.3	323.6	323.5	322.3	321.1	322.2	324.6	325.3	325.1	320.1
Private transportation	310.1	317.4	312.2	314.6	318.0	319.4	319.6	319.3	318.0	316.6	317.6	320.1	320.8	320.2	314.8
New vehicles	207.3	214.2	212.8	213.2	213.2	213.5	213.6	213.6	213.5	213.5	215.3	217.5	218.6	219.0	219.4
New cars	207.9	214.5	213.1	213.4	213.4	213.8	214.0	214.0	213.9	213.8	215.5	217.8	218.8	219.2	219.7
Used cars	375.7	379.7	384.6	386.2	386.4	384.2	380.3	376.7	374.0	374.3	375.3	376.4	375.6	374.1	370.7
Motor fuel	372.2	375.4	354.0	362.2	375.7	383.0	386.2	387.2	383.8	379.5	376.3	378.7	379.6	375.3	353.0
Gasoline	371.8	375.0	353.2	361.6	375.3	382.7	386.0	387.0	383.7	379.2	375.8	378.1	378.9	374.6	352.3
Maintenance and repair	342.2	352.6	349.2	349.6	349.3	350.6	351.5	352.2	352.9	354.5	356.9	357.2	359.0	359.4	360.4
Other private transportation	274.2	287.7	285.2	285.1	286.3	285.9	286.9	287.7	287.6	285.2	289.2	293.7	294.7	296.9	298.4
Other private transportation commodities	203.9	204.7	206.1	204.2	205.1	203.5	205.9	204.3	204.9	205.6	205.0	203.7	204.3	205.6	205.4
Other private transportation services	295.4	312.3	308.7	309.2	310.4	310.4	310.9	312.4	312.1	308.9	314.1	320.2	321.3	323.7	325.7
Public transportation	376.8	391.7	384.2	386.7	387.4	387.6	388.4	392.1	393.5	396.8	399.3	400.1	400.2	408.6	412.6
Medical care	377.7	401.2	392.0	394.6	396.1	397.7	399.8	402.0	404.5	406.3	408.5	410.9	412.6	416.0	420.0
Medical care commodities	239.7	256.3	249.6	251.5	253.5	254.8	256.7	257.4	259.0	259.8	260.9	262.2	262.3	264.1	267.0
Medical care services	407.9	432.7	423.1	425.7	427.1	428.7	430.7	433.3	436.1	438.1	440.6	443.2	445.4	449.2	453.5
Professional services	346.5	367.7	359.7	362.4	363.6	365.0	366.8	368.5	370.4	372.1	373.7	375.8	377.6	379.3	382.2
Other medical care services	484.7	513.9	502.3	505.0	506.6	508.2	510.5	514.4	518.4	520.7	524.4	527.5	530.4	536.9	543.0
Entertainment	251.2	260.1	256.9	257.3	258.6	258.9	260.1	260.9	260.8	261.6	263.0	263.7	263.0	265.4	266.5
Entertainment commodities	247.7	254.2	251.9	252.2	253.2	253.1	253.9	254.5	254.3	256.0	257.1	257.2	255.7	257.8	258.3
Entertainment services	258.5	271.6	266.8	267.4	269.2	270.0	272.0	273.2	273.3	272.6	274.6	276.3	276.8	280.0	282.0
Other goods and services	304.9	322.7	317.1	317.6	318.3	318.8	319.5	321.8	322.9	328.7	330.1	330.5	331.9	334.9	336.1
Tobacco products	309.7	328.1	323.0	323.4	323.6	323.6	324.4	329.7	331.1	332.4	334.0	334.3	337.1	342.4	344.4
Personal care	269.4	279.6	275.9	276.3	277.5	278.6	279.2	279.9	280.9	281.8	282.7	283.1	284.0	285.9	286.8
Toilet goods and personal care appliances	270.3	279.0	275.9	276.5	277.5	277.8	278.2	279.2	280.0	281.1	282.0	281.9	283.3	285.9	286.7
Personal care services	268.8	280.5	276.3	276.5	278.0	279.7	280.7	280.9	282.2	282.8	283.7	284.8	285.2	286.4	287.4
Personal and educational expenses	368.2	399.3	389.3	390.1	390.7	390.9	391.6	392.5	393.2	414.5	416.5	417.3	417.4	418.9	419.9
School books and supplies	327.5	355.7	348.7	348.8	349.4	349.5	349.9	350.6	351.2	366.9	369.2	369.3	369.4	375.6	378.4
Personal and educational services	378.2	410.1	399.4	400.3	401.0	401.2	401.9	402.9	403.6	426.1	428.1	428.9	429.1	429.7	430.3
All items	307.6	318.5	313.9	315.3	316.7	317.8	318.7	319.1	319.6	320.5	321.3	322.6	323.4	324.3	323.2
Commodities	280.4	286.5	283.8	285.2	286.7	286.8	286.8	286.4	286.3	286.8	287.6	288.9	289.7	289.8	287.0
Food and beverages	295.2	301.8	301.2	301.6	301.4	300.8	301.2	301.4	301.6	301.8	302.2	303.4	305.4	307.7	307.5
Commodities less food and beverages	269.3	–	271.4	273.6	276.3	277.5	277.7	–	–	–	–	–	–	–	–
Nondurables less food and beverages	277.5	283.8	276.2	279.4	283.2	284.9	285.4	285.0	285.1	286.5	287.0	288.5	288.7	286.9	280.1
Apparel commodities	186.6	191.3	187.2	190.9	191.5	190.7	190.0	187.8	190.4	195.1	196.6	196.5	194.1	189.4	188.2
Nondurables less food, beverages, and apparel	327.0	334.2	324.7	327.8	333.1	336.0	337.2	337.6	336.6	336.4	336.5	338.8	340.1	339.6	330.1
Durables	261.1	265.2	266.2	266.7	267.3	266.3	265.1	263.8	263.1	263.1	264.5	265.7	265.7	265.6	264.6
Services	358.0	377.3	369.6	371.0	372.2	374.9	377.4	379.2	380.7	382.0	383.0	384.2	385.1	387.2	388.8
Rent of shelter (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Household services less rent of shelter (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Transportation services	317.2	332.2	328.1	328.8	329.6	329.9	330.6	332.2	332.4	331.4	335.5	339.3	340.5	343.3	345.4
Medical care services	407.9	432.7	423.1	425.7	427.1	428.7	430.7	433.3	436.1	438.1	440.6	443.2	445.4	449.2	453.5
Other services	292.9	310.1	304.2	304.9	306.2	307.2	308.4	309.3	310.1	315.0	316.7	317.8	318.3	320.4	321.6
Special indexes:															
All items less food	307.5	319.4	313.7	315.4	317.2	318.7	319.8	320.3	320.9	321.9	322.9	324.2	324.6	325.1	323.8
All items less shelter	295.1	303.4	299.7	301.1	302.4	303.0	303.9	304.0	304.0	304.8	305.4	306.4	307.2	307.9	306.4
All items less homeowners' costs	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
All items less medical care	304.0	314.3	309.9	311.3	312.6	313.7	314.6	314.9	315.3	316.1	316.9	318.1	318.9	319.6	318.3
Commodities less food	267.1	272.8	269.0	271.0	273.3	273.8	273.6	272.8	272.7	273.4	274.5	275.9	275.9	275.0	270.9
Nondurables less food	272.6	279.0	271.7	274.7	278.2	279.8	280.4	280.0	280.2	281.5	282.4	283.8	283.9	282.3	276.1
Nondurables less food and apparel	313.2	320.3	311.5	314.4	319.1	321.8	322.9	323.2	322.4	322.3	323.1	325.0	326.3	325.9	317.5
Nondurables	287.4	293.9	289.8	291.6	293.4	294.0	294.4	294.3	294.5	295.2	295.7	297.1	298.2	298.4	295.0
Services less rent of shelter (12/84=100)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Services less medical care	350.5	369.0	361.6	362.8	364.1	366.8	369.3	371.1	372.5	373.6	374.5	375.5	376.2	378.2	379.5
Energy	423.3	426.3	410.6	416.0	424.2	431.3	436.9	437.2	433.9	432.5	426.6	425.4	426.8	424.7	408.1
All items less energy	298.3	309.9	306.4	307.4	308.1	308.6	309.1	309.5	310.4	311.5	313.0	314.5	315.3	316.5	316.9
All items less food and energy	295.8	308.7	304.3	305.5	306.4	307.3	307.8	308.3	309.4	310.7	312.7	314.2	314.6	315.4	316.1
Commodities less food and energy	250.5	256.8	255.5	256.6	257.2	256.8	256.2	255.3	255.8	257.2	258.8	259.5	259.2	258.8	258.5
Energy commodities	410.5	410.9	391.8	399.0	411.6	418.0	419.9	419.6	415.7	412.6	411.2	416.3	418.9	414.1	387.3
Services less energy	350.8	371.1	363.6	364.9	366.2	368.4	369.9	371.9	373.7	374.9	377.3	379.8	380.8	382.9	384.5
Purchasing power of the consumer dollar:															
1967=$1.00	32.5	31.4	31.9	31.7	31.6	31.5	31.4	31.3	31.3	31.2	31.1	31.0	30.9	30.8	30.9
1957-59=$1.00	28.0	27.0	27.4	27.3	27.2	27.1	27.0	26.9	26.9	26.8	26.8	26.7	26.6	26.5	26.6

– Data not available.

31. Consumer Price Index: U.S. city average and available local area data: all items

(1967=100, unless otherwise indicated)

Area[1]	Pricing schedule[2]	Other index base	All Urban Consumers							Urban Wage Earners						
			1985					1986		1985					1986	
			Feb.	Mar.	Oct.	Nov.	Dec.	Jan.	Feb.	Feb.	Mar.	Oct.	Nov.	Dec.	Jan.	Feb.
U.S. city average		-	317.4	318.8	325.5	326.6	327.4	328.4	327.5	313.9	315.3	321.3	322.6	323.4	324.3	323.2
Chicago, Ill.-Northwestern Ind.	M	-	316.7	317.4	322.6	324.2	325.9	326.3	326.4	304.0	304.7	308.9	310.9	312.6	312.9	312.8
Detroit, Mich.	M	-	313.7	315.5	319.7	323.1	323.1	323.1	322.9	304.0	306.0	309.7	313.2	313.1	313.4	312.3
Los Angeles-Long Beach, Anaheim, Calif.	M	-	314.1	314.7	326.1	325.0	326.1	326.8	326.6	309.1	309.8	320.0	319.1	320.1	320.9	320.4
New York, N.Y.-Northeastern N.J.	M	-	310.2	310.9	317.4	319.9	320.8	323.1	322.3	303.6	304.2	309.9	312.5	313.5	315.8	314.7
Philadelphia, Pa.-N.J.	M	-	309.2	310.4	317.4	318.8	319.7	320.3	320.1	312.4	313.5	320.3	321.5	322.5	323.0	322.8
Anchorage, Alaska (10/67 = 100)	1	10/67	-	280.0	-	286.9	-	287.1	-	-	273.1	-	280.1	-	280.2	-
Baltimore, Md.	1	-	-	320.7	-	327.3	-	332.0	-	-	320.2	-	326.3	-	331.1	-
Boston, Mass.	1	-	-	314.4	-	325.4	-	327.1	-	-	312.3	-	323.0	-	324.5	-
Cincinnati, Ohio-Ky.-Ind.	1	-	-	328.4	-	333.4	-	333.2	-	-	322.2	-	326.2	-	326.0	-
Denver-Boulder, Colo.	1	-	-	355.1	-	359.4	-	364.4	-	-	350.7	-	354.1	-	359.1	-
Miami, Fla. (11/77 = 100)	1	11/77	-	170.1	-	173.9	-	174.6	-	-	171.3	-	174.9	-	175.7	-
Milwaukee, Wis.	1	-	-	327.8	-	333.9	-	333.9	-	-	346.9	-	353.2	-	353.0	-
Northeast, Pa.	1	-	-	304.9	-	310.6	-	311.6	-	-	304.2	-	309.6	-	310.6	-
Portland, Oreg.-Wash.	1	-	-	309.0	-	317.1	-	321.3	-	-	299.8	-	307.3	-	311.0	-
St. Louis, Mo.-Ill.	1	-	-	314.3	-	321.6	-	322.4	-	-	311.0	-	318.5	-	319.1	-
San Diego, Calif.	1	-	-	369.2	-	379.0	-	381.9	-	-	333.7	-	341.9	-	344.7	-
Seattle-Everett, Wash.	1	-	-	321.4	-	324.0	-	327.0	-	-	309.0	-	310.8	-	313.5	-
Washington, D.C.-Md.-Va.	1	-	-	319.2	-	326.9	-	331.1	-	-	322.3	-	330.5	-	332.6	-
Alanta, Ga.	2	-	322.6	-	333.0	-	335.3	-	336.9	320.3	-	330.0	-	332.6	-	334.3
Buffalo, N.Y.	2	-	301.3	-	309.3	-	309.8	-	310.1	288.1	-	295.3	-	295.9	-	295.8
Cleveland, Ohio	2	-	340.4	-	348.6	-	348.8	-	350.2	319.8	-	327.0	-	327.5	-	328.3
Dallas-Ft. Worth, Tex.	2	-	333.2	-	343.9	-	344.5	-	347.0	326.9	-	337.5	-	338.3	-	340.4
Honolulu, Hawaii	2	-	292.6	-	295.6	-	298.5	-	301.2	300.3	-	302.7	-	305.8	-	308.5
Houston, Tex.	2	-	333.6	-	337.6	-	336.8	-	337.2	331.1	-	335.0	-	334.1	-	334.3
Kansas City, Mo.-Kansas	2	-	314.6	-	323.1	-	321.8	-	321.1	304.4	-	312.9	-	311.7	-	310.1
Minneapolis-St. Paul, Minn.-Wis.	2	-	330.4	-	340.6	-	340.4	-	339.9	326.0	-	336.0	-	336.0	-	334.9
Pittsburgh, Pa.	2	-	323.8	-	328.4	-	331.5	-	330.1	306.0	-	309.9	-	312.8	-	311.4
San Francisco-Oakland, Calif.	2	-	328.7	-	336.7	-	336.4	-	341.1	324.2	-	331.0	-	331.3	-	336.0
Region[3]																
Northeast	2	12/77	168.2	-	172.5	-	174.3	-	174.5	166.4	-	170.3	-	172.1	-	172.3
North Central	2	12/77	171.2	-	174.9	-	176.0	-	175.4	168.1	-	171.4	-	172.6	-	171.8
South	2	12/77	171.5	-	175.7	-	176.3	-	176.6	171.3	-	175.3	-	176.0	-	176.1
West	2	12/77	171.3	-	176.9	-	177.2	-	177.5	169.6	-	174.8	-	175.2	-	175.4
Population size class[3]																
A-1	2	12/77	168.5	-	172.9	-	174.2	-	174.7	164.9	-	168.7	-	170.2	-	170.5
A-2	2	12/77	173.1	-	177.6	-	178.4	-	178.7	170.4	-	174.6	-	175.4	-	175.5
B	2	12/77	171.8	-	176.3	-	177.2	-	176.9	169.6	-	173.6	-	174.6	-	174.2
C	2	12/77	169.7	-	173.8	-	174.9	-	174.7	170.2	-	174.1	-	175.3	-	175.0
D	2	12/77	169.4	-	173.8	-	174.7	-	174.0	171.2	-	174.9	-	176.0	-	175.2
Region/population size class cross classification[3]																
Class A:																
Northeast	2	12/77	165.5	-	169.6	-	171.2	-	171.8	162.4	-	166.1	-	167.7	-	168.1
North Central	2	12/77	174.3	-	178.2	-	179.4	-	179.2	169.6	-	173.1	-	174.5	-	174.0
South	2	12/77	171.0	-	175.6	-	176.5	-	177.3	171.2	-	175.7	-	176.5	-	177.0
West	2	11/77	173.5	-	179.1	-	179.3	-	179.8	169.6	-	174.6	-	175.0	-	175.5
Class B:																
Northeast	2	12/77	171.5	-	174.9	-	176.7	-	176.4	168.7	-	171.8	-	173.5	-	173.4
North Central	2	12/77	169.7	-	173.4	-	174.2	-	173.7	166.4	-	169.5	-	170.5	-	169.7
South	2	12/77	173.0	-	177.4	-	178.0	-	178.2	169.9	-	173.9	-	174.7	-	174.6
West	2	12/77	172.0	-	177.9	-	178.4	-	177.6	172.7	-	178.4	-	178.9	-	178.2

See footnotes at end of table.

31. Continued— Consumer Price Index: U.S. city average and available local area data: all items

(1967=100, unless otherwise indicated)

Area[1]	Pricing schedule[2]	Other index base	All Urban Consumers							Urban Wage Earners						
			1985					1986		1985					1986	
			Feb.	Mar.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Oct.	Nov.	Dec.	Jan.	Feb.
Class C:																
Northeast	2	12/77	175.8	–	181.7	–	184.1	–	183.1	180.6	–	186.5	–	188.8	–	187.8
North Central	2	12/77	166.7	–	170.1	–	171.5	–	170.4	163.8	–	166.9	–	168.2	–	167.1
South	2	12/77	171.2	–	174.3	–	175.3	–	175.3	172.8	–	175.7	–	176.7	–	176.6
West	2	12/77	164.2	–	169.7	–	169.1	–	171.1	163.2	–	168.3	–	167.8	–	169.6
Class D:																
Northeast	2	12/77	170.3	–	175.6	–	178.1	–	178.9	170.6	–	175.3	–	177.7	–	178.6
North Central	2	12/77	168.2	–	171.6	–	172.6	–	170.7	170.5	–	173.1	–	174.2	–	172.4
South	2	12/77	170.1	–	174.8	–	174.5	–	174.7	172.0	–	176.2	–	176.1	–	176.0
West	2	12/77	170.0	–	174.5	–	176.2	–	174.8	171.5	–	176.0	–	177.7	–	176.3

[1] Area is generally the Standard Metropolitan Statistical Area (SMSA), exclusive of farms. L.A.-Long Beach, Anaheim, Calif. is a combination of two SMSA's, and N.Y., N.Y.-Northeastern N.J. and Chicago, Ill.-Northwestern Ind. are the more extensive Standard Consolidated Areas. Area definitions are those established by the Office of Management and Budget in 1973, except for Denver-Boulder, Colo. which does not include Douglas County. Definitions do not include revisions made since 1973.

[2] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:.

M - Every month.

1 - January, March, May, July, September, and November.

2 - February, April, June, August, October, and December.

[3] Regions are defined as the four Census regions.

The population size classes are aggregations of areas which have urban population as defined:

A-1 - More than 4,000,000.

A-2 - 1,250,000 to 4,000,000.

B - 385,000 to 1,250,000

C - 75,000 to 385,000.

D - Less than 75,000.

Population size class A is the aggregation of population size classes A-1 and A-2.

– Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error than the national index. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in escalator clauses.

32. Annual data: Consumer Price Index all items and major groups

Series	1977	1978	1979	1980	1981	1982	1983	1984	1985
Consumer Price Index for All Urban Consumers:									
All items:									
Index	181.5	195.4	217.4	246.8	272.4	289.1	298.4	311.1	322.2
Percent change	6.5	7.7	11.3	13.5	10.4	6.1	3.2	4.3	3.6
Food and beverages:									
Index	188.0	206.3	228.5	248.0	267.3	278.2	284.4	295.1	302.0
Percent change	6.0	9.7	10.8	8.5	7.8	4.1	2.2	3.8	2.3
Housing									
Index	186.5	202.8	227.6	263.3	293.5	314.7	323.1	336.5	349.9
Percent change	6.8	8.7	12.2	15.7	11.5	7.2	2.7	4.1	4.0
Apparel and upkeep:									
Index	154.2	159.6	166.6	178.4	186.9	191.8	196.5	200.2	206.0
Percent change	4.5	3.5	4.4	7.1	4.8	2.6	2.5	1.9	2.9
Transportation:									
Index	177.2	185.5	212.0	249.7	280.0	291.5	298.4	311.7	319.9
Percent change	7.1	4.7	14.3	17.8	12.1	4.1	2.4	4.5	2.6
Medical care:									
Index	202.4	219.4	239.7	265.9	294.5	328.7	357.3	379.5	403.1
Percent change	9.6	8.4	9.3	10.9	10.8	11.6	8.7	6.2	6.2
Entertainment:									
Index	167.7	176.6	188.5	205.3	221.4	235.8	246.0	255.1	265.0
Percent change	4.9	5.3	6.7	8.9	7.8	6.5	4.3	3.7	3.9
Other goods and services:									
Index	172.2	183.3	196.7	214.5	235.7	259.9	288.3	307.7	326.6
Percent change	5.8	6.4	7.3	9.0	9.9	10.3	10.9	6.7	6.1
Consumer Price Index for Urban Wage Earners and Clerical Workers									
All items:									
Index	181.5	195.3	217.7	247.0	272.3	288.6	297.4	307.6	318.5
Percent change	6.5	7.6	11.5	13.5	10.2	6.0	3.0	3.4	3.5

33. Producer Price Indexes, by stage of processing

(1967=100)

Grouping	Annual average		1985										1986	
	1984	1985	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb
Finished goods	291.1	293.8	292.1	293.1	294.1	294.0	294.8	293.5	290.0	294.7	296.7	297.2	296.2	29
Finished consumer goods	290.3	291.9	290.1	291.2	292.4	292.2	293.1	291.4	288.2	292.3	294.7	295.4	294.1	28
Finished consumer foods	273.3	271.2	273.7	272.2	269.5	268.7	271.2	268.7	265.7	268.2	272.0	274.4	274.9	27
Finished consumer goods excluding foods	294.1	297.4	293.6	295.9	299.0	299.0	299.2	297.8	294.7	299.4	301.1	301.1	298.8	29
Nondurable goods less food	337.3	339.4	333.4	337.4	342.4	342.1	342.4	340.0	340.3	340.3	343.3	343.7	340.3	32
Durable goods	236.8	241.5	240.4	240.7	241.4	241.9	241.9	241.8	234.5	244.9	245.0	244.4	243.6	24
Capital equipment	294.0	300.5	299.3	299.9	300.3	300.5	300.8	301.0	296.3	303.5	303.8	303.5	304.0	30
Intermediate materials, supplies, and components	320.0	318.7	318.6	319.3	319.9	319.3	318.6	317.9	317.7	317.6	318.1	318.8	317.2	31
Materials and components for manufacturing	301.8	299.4	300.0	300.6	300.5	300.3	299.8	299.1	298.4	298.0	297.6	297.6	297.0	29
Materials for food manufacturing	271.1	258.7	263.9	263.9	261.9	262.0	260.3	253.0	249.9	252.3	253.6	253.0	252.4	24
Materials for nondurable manufacturing	290.5	285.8	287.3	287.1	286.7	286.4	285.8	285.8	285.1	283.3	282.6	282.5	283.2	28
Materials for durable manufacturing	325.1	320.2	319.9	322.1	323.0	322.3	320.9	320.3	319.2	318.6	317.4	317.6	313.9	31
Components for manufacturing	287.5	291.5	291.0	291.1	291.1	291.3	291.6	291.9	292.1	292.3	292.4	292.4	292.9	29
Materials and components for construction	310.3	315.2	313.5	314.0	315.9	317.3	316.9	316.5	315.6	315.5	315.1	315.4	316.3	31
Processed fuels and lubricants	566.2	549.4	547.9	552.3	558.0	549.1	544.0	539.8	542.4	542.6	550.7	557.3	539.8	50
Containers	302.3	311.2	313.1	312.4	311.7	312.0	311.4	310.3	309.9	310.4	309.8	310.7	310.7	31
Supplies	283.4	284.2	283.8	283.7	283.4	283.3	283.6	284.1	284.5	285.1	285.8	285.9	286.7	28
Crude materials for further processing	330.8	306.2	312.3	311.0	309.1	305.6	303.9	295.3	291.8	297.8	305.6	304.7	301.3	29
Foodstuffs and feedstuffs	259.5	235.0	242.9	239.9	236.3	233.7	231.6	221.0	215.4	224.6	236.7	236.8	231.4	22
Nonfood materials[1]	380.5	355.4	358.4	360.2	357.7	354.0	353.5	351.2	352.2	352.8	352.3	351.1	351.2	32
Special groupings														
Finished goods, excluding foods	294.8	299.1	296.0	297.8	300.1	300.2	300.5	299.5	295.9	301.3	302.7	302.5	301.1	29
Finished energy goods	750.3	721.4	693.2	714.9	746.1	741.4	733.8	719.9	718.2	716.5	732.9	736.1	704.8	63
Finished goods less energy	265.1	269.2	268.8	268.8	268.4	268.4	269.7	269.0	265.5	270.5	271.7	272.1	272.7	27
Finished consumer goods less energy	257.8	261.3	261.1	260.9	260.3	260.3	261.9	260.9	257.7	262.1	263.5	264.1	264.8	26
Finished goods less food and energy	262.3	268.7	267.2	267.7	268.2	268.6	269.4	269.4	265.7	271.6	271.8	271.4	272.1	27
Finished consumer goods less food and energy	245.9	252.1	250.5	251.1	251.5	252.0	252.9	252.9	249.6	254.9	255.1	254.7	255.5	25
Consumer nondurable goods less food and energy	239.0	246.2	244.4	245.0	245.2	245.6	247.4	247.3	247.9	248.3	248.6	248.5	250.6	25
Intermediate materials less foods and feeds	325.0	325.0	324.7	325.5	326.4	325.7	325.0	324.5	324.4	324.1	324.5	325.2	323.5	31
Intermediate foods and feeds	253.1	232.7	236.7	235.4	232.6	232.2	231.7	227.1	225.4	228.6	231.0	231.7	232.4	22
Intermediate energy goods	545.0	528.8	527.5	531.5	536.7	528.6	523.8	519.8	522.3	522.2	529.5	536.3	519.1	48
Intermediate goods less energy	303.8	303.9	304.0	304.3	304.5	304.6	304.3	303.9	303.4	303.4	303.2	303.3	303.4	30
Intermediate materials less foods and energy	303.6	305.2	305.2	305.6	305.9	306.0	305.6	305.5	305.0	304.6	304.2	304.2	304.2	30
Crude energy materials	785.2	749.1	746.4	749.1	760.7	754.5	752.6	742.9	743.2	743.1	742.9	739.5	739.9	67
Crude materials less energy	255.5	233.2	240.4	238.6	234.8	231.7	230.1	221.8	217.9	224.7	233.4	232.9	229.1	22
Crude nonfood materials less energy	266.1	249.7	255.4	257.3	252.3	247.4	247.2	245.8	246.7	246.5	244.9	242.6	243.7	24

[1] Crude nonfood materials except fuel.

34. Producer Price indexes, by durability of product

(1967=100)

Grouping	Annual average		1985										1986	
	1984	1985	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Total durable goods	293.6	297.3	296.3	297.1	297.6	297.8	297.8	297.8	295.2	298.8	298.7	298.5	298.2	298.3
Total nondurable goods	323.3	317.3	317.7	318.4	318.9	317.5	317.3	314.1	313.0	314.3	317.9	318.7	316.9	309.0
Total manufactures	302.9	304.3	303.3	304.2	305.2	304.8	304.6	303.8	302.2	304.4	305.4	305.7	304.7	301.0
Durable	293.9	298.1	296.9	297.6	298.4	298.7	298.7	298.6	296.0	299.7	299.6	299.5	299.1	299.2
Nondurable	312.3	310.5	309.9	310.8	312.1	311.0	310.6	309.0	308.4	309.2	311.3	312.0	310.3	302.7
Total raw or slightly processed goods	346.6	328.2	332.2	332.1	329.8	327.3	327.5	320.2	317.6	320.6	327.7	328.8	326.9	319.0
Durable	266.7	252.2	261.2	262.1	255.4	247.3	247.6	249.7	249.7	248.1	245.9	243.8	247.6	250.6
Nondurable	351.4	332.8	336.4	336.2	334.3	332.1	332.3	324.4	321.6	324.9	332.7	334.0	331.7	323.1

35. Annual data: Producer Price Indexes, by stage of processing

(1967=100)

Index	1977	1978	1979	1980	1981	1982	1983	1984	1985
Finished goods:									
Total	181.7	195.9	217.7	247.0	269.8	280.7	285.2	291.1	293.8
Consumer goods	180.7	194.9	217.9	248.9	271.3	281.0	284.6	290.3	291.9
Capital equipment	184.6	199.2	216.5	239.8	264.3	279.4	287.2	294.0	300.5
Intermediate materials, supplies, and components:									
Total	201.5	215.6	243.2	280.3	306.0	310.4	312.3	320.0	318.7
Materials and components for manufacturing	195.4	208.7	234.4	265.7	286.1	289.8	293.4	301.8	299.4
Materials and components for construction	203.4	224.7	247.4	268.3	287.6	293.7	301.8	310.3	315.2
Processed fuels and lubricants	282.5	295.3	364.8	503.0	595.4	591.7	564.8	566.2	549.4
Containers	188.3	202.8	226.8	254.5	276.1	285.6	286.6	302.3	311.2
Supplies	188.7	198.5	218.2	244.5	263.8	272.1	277.1	283.4	284.2
Crude materials for further processing:									
Total	209.2	234.4	274.3	304.6	329.0	319.5	323.6	330.8	306.2
Foodstuffs and feedstuffs	192.1	216.2	247.9	259.2	257.4	247.8	252.2	259.5	235.0
Nonfood materials except fuel	212.2	233.1	284.5	346.1	413.7	376.8	372.2	380.5	355.4
Fuel	372.1	426.8	507.6	615.0	751.2	886.1	931.5	931.3	912.3

36. U.S. export price indexes by Standard International Trade Classification,

(June 1977=100, unless otherwise indicated)

Category	1974 SITC	1983			1984				1985			
		June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
ALL COMMODITIES (9/83=100)		-	100.0	99.5	100.2	101.5	99.3	98.1	97.5	97.5	96.5	96.8
Food (3/83=100)	0	105.1	113.1	108.8	106.2	109.6	103.5	96.5	95.8	94.0	90.2	93.6
Meat (3/83=100)	01	100.5	100.8	101.2	108.9	108.7	105.6	104.4	103.9	104.7	106.1	112.3
Fish (3/83=100)	03	96.5	97.7	100.4	99.8	98.7	98.0	98.7	101.0	103.6	102.6	101.8
Grain and grain preparations (3/80=100)	04	103.5	111.5	105.6	102.7	107.4	101.2	92.9	92.4	90.3	82.6	87.1
Vegetables and fruit (3/83=100)	05	105.8	114.8	116.1	116.2	126.8	125.5	114.6	119.4	120.1	126.8	118.8
Feedstuffs for animals (3/83=100)	08	100.6	121.4	117.4	106.9	98.8	83.5	82.4	72.8	68.6	75.7	83.4
Misc. food products (3/83=100)	09	101.1	102.8	101.7	104.9	110.6	109.5	108.4	110.6	109.2	108.1	107.7
Beverages and tobacco (6/83=100)	1	100.0	100.0	101.5	101.6	101.9	102.8	101.3	99.9	100.1	99.7	98.6
Beverages (9/83=100)	11	-	100.0	103.3	102.3	102.9	103.3	103.7	104.0	105.3	101.8	100.9
Tobacco and tobacco products (6/83=100)	12	100.0	100.0	101.4	101.6	101.8	102.7	101.1	99.5	99.6	99.5	98.4
Crude materials (6/83=100)	2	100.0	114.6	112.2	112.5	118.3	105.2	101.4	97.5	96.8	93.3	93.2
Raw hides and skins (6/80=100)	21	118.2	129.2	135.2	145.6	154.7	153.7	133.6	121.0	126.2	129.0	139.9
Oilseeds and oleaginous fruit (9/77=100)	22	75.0	105.6	96.8	93.9	104.3	79.9	74.8	71.0	71.2	64.2	63.9
Crude rubber (including synthetic and reclaimed) (9/83=100)	23	-	100.0	102.2	103.3	106.0	104.1	104.0	106.4	106.3	107.1	106.0
Wood	24	127.1	128.7	129.8	131.1	129.4	123.8	125.4	128.7	125.7	124.5	128.1
Pulp and waste paper (6/83=100)	25	100.0	103.5	106.0	112.5	122.1	120.8	114.2	100.5	96.1	93.8	92.7
Textile fibers	26	111.3	117.3	123.1	120.5	125.6	109.4	106.7	102.4	105.8	103.6	102.6
Crude fertilizers and minerals	27	145.0	144.8	144.8	146.6	147.7	163.0	163.2	165.6	167.9	169.4	165.5
Metalliferous ores and metal scrap	28	-	100.0	96.7	100.2	98.5	93.2	92.4	89.2	82.0	80.1	78.0
Mineral fuels	3	-	100.0	99.2	99.1	99.7	99.7	99.7	100.1	99.2	97.6	96.6
Animal and vegetables oils, fats, and waxes	4	100.0	125.6	122.0	129.8	164.5	145.7	147.9	142.0	144.5	114.5	101.4
Fixed vegetable oils and fats (6/83=100)	42	100.0	138.2	129.3	133.2	176.4	159.0	156.7	152.9	164.8	128.8	108.7
Chemicals (3/83=100)	5	96.4	97.0	98.6	101.4	99.7	98.3	97.7	97.0	96.8	97.1	96.6
Organic chemicals (12/83=100)	51	-	-	100.0	100.2	101.0	97.4	94.7	93.8	96.5	97.1	95.4
Fertilizers, manufactured (3/83=100)	56	88.9	89.8	96.8	108.3	96.9	97.4	94.8	92.5	87.9	89.8	90.0
Intermediate manufactured products (9/81=100)	-	100.4	100.8	100.0	101.0	101.3	102.0	100.4	99.4	99.2	99.2	99.2
Leather and furskins (9/79=100)	6	67.2	70.1	75.8	83.5	81.2	80.8	79.0	82.5	79.2	75.9	78.5
Rubber manufactures	61	144.8	145.0	145.0	146.7	147.5	148.9	148.5	150.2	149.0	148.3	148.7
Paper and paperboard products (6/78=100)	62	135.8	139.7	145.5	150.2	154.7	160.0	159.5	155.0	151.6	149.6	148.1
Iron and steel (3/82=100)	64	95.9	96.6	96.3	95.9	96.1	96.8	96.5	95.5	95.3	95.9	98.3
Nonferrous metals (9/81=100)	-	102.8	102.3	93.8	94.2	92.9	90.4	82.5	79.7	79.6	79.8	78.2
Metal manufactures, n.e.s. (3/82=100)	-	101.5	101.9	102.1	103.1	104.5	105.1	105.0	105.4	105.2	105.4	104.4
Machinery and transport equipment, excluding military and commercial aircraft (12/78=100)	67	135.3	135.9	137.0	138.5	139.4	140.1	141.5	142.3	143.0	143.1	143.3
Power generating machinery and equipment (12/78=100)	68	152.5	152.3	154.4	158.4	156.9	160.6	167.5	165.3	167.4	167.1	167.6
Machinery specialized for particular industries (9/78=100)	69	148.9	149.1	151.1	152.3	152.8	153.7	153.4	155.0	155.7	156.0	156.1
Metalworking machinery (6/78=100)	7	148.4	148.3	148.7	150.8	151.2	151.7	151.9	153.4	155.1	156.3	158.4
General industrial machines and parts n.e.s. 9/78=100)	71	145.0	145.4	145.9	148.6	149.0	149.3	150.2	152.4	152.0	152.4	152.2
Office machines and automatic data processing equipment	72	103.6	103.2	102.5	101.4	101.5	99.8	101.4	100.9	100.0	99.9	99.4
Telecommunications, sound recording and reproducing equipment	73	131.1	132.2	132.1	133.0	132.3	134.4	134.3	133.3	133.3	134.1	134.5
Electrical machinery and equipment	74	108.5	109.4	109.8	110.2	112.6	113.8	114.6	114.9	116.1	115.3	113.8
Road vehicles and parts (3/80=100)	75	125.6	127.5	128.8	130.2	131.2	131.0	131.8	133.1	133.9	133.8	135.0
Other transport equipment, excl. military and commercial aviation	76	175.8	176.4	179.3	183.1	187.7	189.6	191.7	195.5	196.9	199.6	201.0
Other manufactured articles	77	-	100.0	100.2	100.6	100.4	100.7	99.3	99.5	100.4	100.3	100.3
Apparel (9/83=100)	78	-	100.0	100.8	101.9	102.1	103.9	103.4	104.7	104.7	105.0	105.3
Professional, scientific, and controlling instruments and apparatus	79	169.8	169.0	171.5	171.8	172.0	175.8	171.7	175.5	178.3	178.7	178.8
Photographic apparatus and supplies, optical goods, watches and clocks (12/77=100)	8	129.8	130.0	132.0	132.0	131.3	132.7	130.3	128.0	129.1	127.5	128.5
Miscellaneous manufactured articles, n.e.s.	84	100.0	100.0	98.2	98.5	97.9	95.2	94.1	92.4	93.1	93.1	92.4
Gold, non-monetary (6/82=100)	971	-	-	-	-	-	-	-	-	-	-	-

- Data not available.

37. U.S. import price indexes by Standard International Trade Classification

(June 1977=100, unless otherwise indicated)

Category	1974 SITC	1983	1984				1985			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
ALL COMMODITIES (9/82=100)		97.3	98.0	98.3	96.7	95.7	93.5	93.0	92.9	94.6
Food (9/77=100)	0	100.4	102.5	103.5	102.0	98.1	98.5	96.8	94.9	102.8
Meat	01	134.1	133.4	133.8	135.4	132.3	130.4	118.2	120.6	131.2
Dairy products and eggs (6/81=100)	02	99.6	100.8	99.8	98.9	98.4	98.3	97.9	99.1	100.5
Fish	03	136.0	132.7	134.2	134.2	133.9	132.9	129.4	129.7	132.7
Bakery goods, pasta products, grain and grain preparations (9/77=100)	04	132.7	136.5	134.8	132.9	132.8	131.8	132.3	136.3	141.9
Fruits and vegetables	05	125.0	136.1	135.8	135.4	117.2	127.1	129.4	120.2	131.2
Sugar, sugar preparations, and honey (3/82=100)	06	117.9	117.1	120.3	119.0	118.5	118.4	122.6	123.1	111.9
Coffee, tea, cocoa	07	59.6	61.4	62.4	60.3	58.4	57.0	56.0	54.4	64.6
Beverages and tobacco	1	155.4	155.3	156.3	157.1	156.5	156.2	157.1	158.0	161.6
Beverages	11	152.7	152.6	153.6	153.5	152.8	154.2	154.3	156.0	159.1
Crude materials	2	98.6	103.2	102.6	100.6	98.9	94.0	93.6	91.5	91.2
Crude rubber (inc. synthetic & reclaimed) (3/84=100)	23	–	100.0	93.7	90.7	83.8	77.6	76.4	68.9	73.2
Wood (9/81=100)	24	107.2	114.8	103.2	99.6	104.0	100.7	106.9	101.6	99.4
Pulp and waste paper (12/81=100)	25	80.9	87.6	96.1	96.3	93.2	84.0	80.4	76.8	75.8
Crude fertilizers and crude minerals (12/83=100)	27	100.0	100.0	96.2	98.0	98.6	100.3	101.7	102.7	102.1
Metalliferous ores and metal scrap (3/84=100)	28	–	100.0	102.8	100.1	95.6	90.4	87.6	89.5	90.1
Crude vegetable and animal materials, n.e.s.	29	–	100.0	100.8	101.1	106.4	104.3	104.9	102.5	102.5
Fuels and related products (6/82=100)	3	87.6	88.3	88.0	86.9	85.2	82.9	80.9	79.8	80.1
Petroleum and petroleum products (6/82=100)	33	87.6	88.2	88.1	87.0	85.2	83.8	81.6	80.3	81.1
Fats and oils (9/83=100)	4	100.4	117.4	141.8	124.4	114.9	89.9	76.7	57.6	50.6
Vegetable oils (9/83=100)	42	100.5	118.1	143.1	125.3	115.3	89.5	75.9	56.2	48.9
Chemicals (9/82=100)	5	99.5	101.1	100.6	98.8	97.1	95.7	94.9	94.5	94.2
Medicinal and pharmaceutical products (3/84=100)	54	–	100.0	98.5	96.4	94.6	91.6	95.1	95.3	96.7
Manufactured fertilizers (3/84=100)	56	–	100.0	101.7	98.5	92.9	94.2	82.0	80.8	78.5
Chemical materials and products, n.e.s. (9/84=100)	59	–	–	–	100.0	97.5	96.1	95.6	96.9	97.8
Intermediate manufactured products (12/77=100)	6	137.3	137.6	139.6	137.2	136.8	133.1	132.4	133.6	133.4
Leather and furskins	61	137.6	141.6	145.3	144.0	140.4	135.3	133.3	137.0	141.3
Rubber manufactures, n.e.s.	62	141.1	141.8	140.8	139.6	140.5	139.5	138.6	137.3	138.1
Cork and wood manufactures	63	134.7	130.1	131.0	126.4	126.1	121.3	121.2	123.4	124.0
Paper and paperboard products	64	147.0	148.0	150.4	156.1	157.5	157.6	157.2	157.8	156.5
Textiles	65	128.5	130.8	130.1	131.6	132.9	130.4	127.5	126.5	128.1
Nonmetallic mineral manufactures, n.e.s.	66	166.4	168.4	166.6	156.6	159.4	154.3	151.8	157.6	162.3
Iron and steel (9/78=100)	67	119.5	118.5	123.8	124.7	123.7	121.0	120.1	119.1	118.3
Nonferrous metals (12/81=100)	68	94.8	95.0	96.3	90.2	87.3	81.9	82.3	83.7	80.4
Metal manufactures, n.e.s.	69	118.9	119.7	120.5	119.3	119.3	117.4	117.8	119.5	121.6
Machinery and transport equipment (6/81=100)	7	104.1	104.0	104.1	102.6	102.9	101.6	102.6	103.5	107.2
Machinery specialized for particular industries (9/78=100)	72	100.8	100.4	100.0	98.8	98.0	96.2	97.0	101.4	104.7
Metalworking machinery (3/80=100)	73	95.7	94.3	93.8	92.1	89.9	86.3	90.5	94.2	98.1
General industrial machinery and parts, n.e.s. (6/81=100)	74	93.5	93.7	94.4	92.4	91.3	89.2	91.1	94.3	98.0
Office machines and automatic data processing equipment (3/80=100)	75	96.9	97.8	96.7	94.1	92.2	89.6	89.4	90.3	93.7
Telecommunications, sound recording and reproducing apparatus (3/80=100)	76	94.9	94.2	94.8	93.6	91.3	90.0	88.8	88.3	88.6
Electrical machinery and equipment (12/81=100)	77	95.9	94.2	91.2	87.0	86.4	82.1	83.9	81.4	83.3
Road vehicles and parts (6/81=100)	78	109.5	109.0	110.4	109.8	111.3	111.5	112.1	112.7	117.8
Misc. manufactured articles (3/80=100)	8	100.0	100.6	101.5	99.7	100.0	97.0	98.0	99.6	100.8
Plumbing, heating, and lighting fixtures (6/80=100)	81	108.2	109.5	112.0	110.7	111.6	113.9	114.1	117.8	115.0
Furniture and parts (6/80=100)	82	136.0	136.8	140.8	138.4	142.5	137.4	136.7	142.1	142.7
Clothing (9/77=100)	84	128.5	130.2	132.5	135.4	138.5	136.7	133.9	134.5	134.5
Footwear	85	136.0	136.8	140.8	138.4	142.5	137.4	136.7	142.1	142.7
Professional, scientific, and controlling instruments and apparatus (12/79=100)	87	97.6	98.7	97.8	95.6	92.9	89.2	92.3	98.8	102.4
Photographic apparatus and supplies, optical goods, watches, and clocks (3/80=100)	88	90.6	89.6	92.8	91.2	91.3	88.9	89.5	91.1	94.9
Misc. manufactured articles, n.e.s. (6/82=100)	89	104.9	105.2	104.0	98.3	96.3	91.2	95.2	96.4	97.9
Gold, non-monetary (6/82=100)	971	–	–	–	–	–	–	–	–	–

– Data not available.

38. U.S. export price indexes by end-use category

(September 1983 = 100 unless otherwise indicated)

Category	Percentage of 1980 Trade Value	1983	1984				1985			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	D
Foods, feeds, and beverages	16.294	95.0	92.8	98.5	88.8	83.0	81.5	80.9	76.2	
Raw materials	30.696	100.7	102.2	102.5	100.5	99.1	97.6	97.2	96.5	
Raw materials, nondurable	21.327	101.9	103.6	104.4	102.8	101.4	99.6	99.5	98.7	
Raw materials, durable	9.368	97.7	98.8	97.7	95.0	93.3	92.6	91.6	91.1	
Capital goods (12/82=100)	30.186	102.0	103.2	103.9	104.6	105.6	106.2	106.6	106.6	
Automotive vehicles, parts and engines (12/82=100)	7.483	103.9	104.5	105.3	105.3	105.7	106.7	108.0	108.1	
Consumer goods	7.467	99.6	100.9	100.9	101.3	100.8	100.9	101.1	101.9	
Durables	3.965	98.9	100.1	99.6	99.4	99.3	99.1	99.2	100.4	
Nondurables	3.501	100.3	101.8	102.1	103.0	102.3	102.7	103.0	103.3	

39. U.S. import price indexes by end-use category

(December 1982=100)

Category	Percentage of 1980 Trade Value	1983	1984				1985			
		Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	D
Foods, feeds, and beverages	7.477	104.0	106.0	107.2	105.6	101.8	102.1	100.4	99.0	
Petroleum and petroleum products, excl. natural gas	31.108	88.1	88.8	88.5	87.5	85.7	84.4	82.1	80.9	
Raw materials, excluding petroleum	19.205	101.8	103.5	104.3	102.5	101.1	96.3	95.8	95.4	
Raw materials, nondurable	9.391	99.0	100.7	102.1	101.7	100.7	95.0	93.9	93.5	
Raw materials, durable	9.814	104.7	106.5	106.7	103.3	101.6	97.7	97.8	97.4	
Capital goods	13.164	101.3	100.8	99.8	98.0	97.8	94.8	96.3	97.6	
Automotive vehicles, parts and engines	11.750	103.8	103.6	104.9	104.0	105.2	105.4	105.9	106.4	
Consumer goods	14.250	100.4	101.0	101.9	100.6	101.1	99.5	99.4	101.0	
Durable	5.507	101.1	101.1	101.4	98.8	98.5	97.0	97.0	98.9	
Nondurable	8.743	99.5	100.9	102.5	103.0	104.6	103.0	102.5	103.9	

40. U.S. export price indexes by Standard Industrial Classification [1]

Industry group	1983	1984				1985			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Manufacturing:									
Food and kindred products (6/83=100)	108.3	109.0	112.7	105.6	103.3	99.5	99.5	96.7	98.1
Tobacco manufactures	–	–	–	–	–	–	–	–	–
Textile mill products	–	–	–	–	–	–	–	–	–
Apparel and related products	–	–	–	–	–	–	–	–	–
Lumber and wood products, except furniture (6/83=100)	101.0	101.5	100.1	97.0	97.9	99.9	99.5	98.3	101.2
Furniture and fixtures (9/83=100)	100.9	101.8	103.1	103.5	104.9	105.2	106.5	107.1	108.4
Paper and allied products (3/81=100)	94.7	98.6	104.3	106.2	103.6	97.1	94.7	93.2	92.1
Printing, publishing, and allied products	–	–	–	–	–	–	–	–	–
Chemicals and allied products (12/84=100)	101.4	103.3	102.3	101.3	100.7	100.3	99.6	99.7	99.2
Petroleum and coal products (12/83=100)	100.0	101.6	102.1	100.7	100.4	101.3	102.7	102.0	99.1
Rubber and miscellaneous plastic products	–	–	–	–	–	–	–	–	–
Leather and leather products	–	–	–	–	–	–	–	–	–
Stone, clay, glass, and concrete products	–	–	–	–	–	–	–	–	–
Primary metal products (3/82=100)	105.0	105.1	104.0	100.0	95.8	91.2	92.7	93.6	93.6
Fabricated metal products	–	–	–	–	–	–	–	–	–
Machinery, except electrical (9/78=100)	135.8	137.4	137.9	138.0	139.9	140.4	140.5	140.6	140.5
Electrical machinery (12/80=100)	107.6	108.0	109.5	110.7	111.1	111.3	112.4	111.9	111.2
Transportation equipment (12/78=100)	153.6	155.7	157.2	157.8	158.9	160.5	162.0	162.8	164.4
Scientific instruments; optical goods; clocks (6/77=100)	152.8	153.1	153.2	156.0	153.0	154.9	156.6	156.2	156.7
Miscellaneous manufactured commodities	–	–	–	–	–	–	–	–	–

[1] SIC - based classification.

– Data not available.

41. U.S. import price indexes by Standard Industrial Classification [1]

Industry group	1983	1984				1985			
	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.
Manufacturing:									
Food and kindred products (6/77=100)	120.8	122.3	126.6	124.1	122.6	118.8	115.0	114.2	115.1
Tobacco manufactures	–	–	–	–	–	–	–	–	–
Textile mill products (9/82=100)	103.3	104.4	103.8	104.3	104.7	102.8	101.0	100.4	101.8
Apparel and related products (6/77=100)	126.5	128.1	129.6	133.9	138.2	135.6	133.0	133.9	134.4
Lumber and wood products, except furniture (6/77=100)	125.0	129.4	121.1	117.3	120.0	116.3	120.6	117.5	115.8
Furniture and fixtures (6/80=100)	95.5	95.7	96.9	96.2	95.6	93.9	96.1	97.7	98.2
Paper and allied products (6/77=100)	132.9	136.5	141.9	146.0	145.5	141.5	139.8	138.7	137.4
Printing, publishing, and allied products	–	–	–	–	–	–	–	–	–
Chemicals and allied products (9/82=100)	99.5	101.8	101.8	99.8	98.2	95.3	93.9	93.3	95.8
Petroleum and coal products	–	–	–	–	–	–	–	–	–
Rubber and miscellaneous plastic products (12/80=100)	97.4	98.1	98.5	97.8	98.0	96.9	96.7	96.6	97.5
Leather and leather products	139.1	140.3	143.7	141.6	144.2	139.1	138.9	142.3	144.0
Stone, clay, glass, concrete products	–	–	–	–	–	–	–	–	–
Primary metal products (6/81=100)	90.5	90.1	91.9	88.3	86.6	82.2	83.0	83.4	81.9
Fabricated metal products (12/84=100)	–	–	–	–	100.0	99.0	99.1	101.0	102.6
Machinery, except electrical (3/80=100)	98.0	97.8	97.1	95.5	94.1	91.8	93.4	96.6	100.0
Electrical machinery (9/84=100)	–	–	–	100.0	98.6	95.1	95.8	94.5	95.9
Transportation equipment (6/81=100)	110.3	110.6	111.6	110.7	112.9	113.1	114.2	114.8	119.6
Scientific instruments; optical goods; clocks (12/79=100)	94.3	94.0	95.5	94.4	93.2	90.7	91.7	94.6	99.0
Miscellaneous manufactured commodities (9/82=100)	99.7	99.8	99.1	95.8	96.4	95.1	95.1	96.6	98.7

[1] SIC - based classification.

– Data not available.

42. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

(1977=100)

Item	Annual average	Quarterly Indexes										
	1984	1983			1984				1985			
		II	III	IV	I	II	III	IV	I	II	III	IV
Business:												
Output per hour of all persons	105.2	103.5	103.1	103.6	104.9	105.5	105.3	105.0	105.3	105.5	105.9	105.1
Compensation per hour	168.2	161.5	162.1	164.1	166.1	167.5	169.1	170.4	172.4	174.3	176.1	177.6
Real compensation per hour	98.2	98.7	98.1	98.3	98.3	98.2	98.2	98.1	98.5	98.5	98.9	98.7
Unit labor costs	159.9	156.0	157.2	158.4	158.4	158.7	160.6	162.3	163.8	165.2	166.3	169.0
Unit nonlabor payments	156.5	144.9	147.3	148.6	153.4	156.8	157.3	158.0	157.6	158.2	158.6	156.4
Implicit price deflator	158.7	152.0	153.7	154.9	156.6	158.0	159.4	160.8	161.6	162.7	163.5	164.5
Nonfarm business:												
Output per hour of all persons	104.1	102.8	102.9	103.0	104.0	104.5	104.2	103.8	104.1	104.2	104.3	103.4
Compensation per hour	168.0	161.6	162.3	164.0	165.9	167.4	168.8	170.1	172.1	173.7	175.0	176.4
Real compensation per hour	98.0	98.8	98.2	98.2	98.1	98.1	98.0	97.9	98.3	98.2	98.3	98.1
Unit labor costs	161.4	157.2	157.7	159.1	159.6	160.1	162.0	163.9	165.3	166.8	167.8	170.5
Unit nonlabor payments	156.3	146.9	149.5	150.7	152.5	156.3	157.6	158.4	158.8	160.2	161.4	158.0
Implicit price deflator	159.6	153.6	154.8	156.1	157.1	158.8	160.5	161.9	163.0	164.5	165.5	166.1
Nonfinancial corporations:												
Output per hour of all employees	106.2	103.7	104.6	105.0	106.2	106.7	106.1	105.8	105.8	105.8	106.5	–
Compensation per hour	166.1	160.1	160.8	162.4	164.2	165.6	166.8	167.9	169.4	170.8	172.0	–
Real compensation per hour	96.9	97.9	97.3	97.3	97.1	97.1	96.9	96.7	96.7	96.6	96.6	–
Total unit costs	161.2	160.1	159.6	159.5	159.1	159.9	162.2	163.6	164.4	165.8	165.5	–
Unit labor costs	156.4	154.4	153.8	154.8	154.7	155.1	157.2	158.7	160.0	161.5	161.5	–
Unit nonlabor costs	175.3	176.9	176.7	173.7	172.3	174.0	177.0	177.9	177.6	178.6	177.2	–
Unit profits	135.6	103.1	114.4	124.0	132.9	139.1	134.3	135.9	138.3	139.1	150.2	–
Unit nonlabor payments	161.4	151.0	154.9	156.3	158.5	161.8	162.1	163.2	163.8	164.8	167.7	–
Implicit price deflator	158.1	153.2	154.2	155.3	156.0	157.4	158.9	160.3	161.3	162.6	163.6	–
Manufacturing:												
Output per hour of all persons	118.5	111.9	114.5	114.7	116.7	117.8	119.8	119.5	119.9	121.7	122.7	122.4
Compensation per hour	169.1	162.6	163.3	164.4	166.7	168.1	169.9	171.8	174.3	176.1	177.3	178.8
Real compensation per hour	98.7	99.4	98.8	98.5	98.6	98.6	98.7	98.9	99.5	99.5	99.6	99.4
Unit labor costs	142.8	145.4	142.6	143.4	142.8	142.7	141.9	143.7	145.4	144.7	144.5	146.1

– Data not available.

43. Annual indexes of multifactor productivity and related measures, selected years

(1977=100)

Item	1960	1970	1973	1974	1976	1977	1979	1980	1981	1982	1983	1984
Private business												
Productivity:												
Output per hour of all persons	64.8	86.1	94.8	92.5	97.6	100.0	99.3	98.7	100.6	100.8	103.7	107.1
Output per unit of capital services	98.4	98.5	103.0	96.5	96.1	100.0	100.3	95.6	94.1	89.5	92.3	97.4
Multifactor productivity	75.4	90.2	97.5	93.8	97.1	100.0	99.7	97.6	98.3	96.8	99.6	103.7
Output	53.3	78.3	91.8	89.9	93.7	100.0	107.9	106.4	109.2	106.3	111.1	121.0
Inputs:												
Hours of all persons	82.2	90.8	96.8	97.2	95.9	100.0	108.6	107.8	108.5	105.4	107.2	113.0
Capital services	54.1	79.4	89.1	93.1	97.5	100.0	107.5	111.4	116.0	118.8	120.4	124.3
Combined units of labor and capital input	70.7	86.7	94.1	95.8	96.5	100.0	108.2	109.0	111.0	109.9	111.6	116.8
Capital per hour of all persons	65.9	87.4	92.0	95.9	101.6	100.0	98.9	103.3	106.9	112.7	112.3	109.9
Private nonfarm business												
Productivity:												
Output per hour of all persons	68.0	86.8	95.3	92.9	97.8	100.0	99.0	98.2	99.6	99.9	103.5	106.3
Output per unit of capital services	98.4	98.6	103.2	96.5	96.1	100.0	100.1	95.2	93.2	88.7	91.9	96.6
Multifactor productivity	77.6	90.7	97.9	94.1	97.2	100.0	99.4	97.2	97.4	95.9	99.4	102.9
Output	52.3	77.8	91.7	89.7	93.6	100.0	108.0	106.4	108.7	105.9	111.3	121.0
Inputs:												
Hours of all persons	77.0	89.7	96.2	96.5	95.7	100.0	109.1	108.4	109.1	106.0	107.6	113.8
Capital services	53.2	78.9	88.8	93.0	97.4	100.0	107.9	111.7	116.6	119.4	121.1	125.2
Combined units of labor and capital input	67.4	85.9	93.6	95.3	96.3	100.0	108.7	109.5	111.6	110.4	112.0	117.5
Capital per hour of all persons	69.1	88.0	92.4	96.3	101.8	100.0	98.9	103.1	106.8	112.6	112.6	110.1
Manufacturing												
Productivity:												
Output per hour of all persons	60.0	79.2	93.0	90.8	97.6	100.0	101.6	101.7	104.9	107.1	111.6	115.6
Output per unit of capital services	87.9	91.8	108.2	99.6	96.1	100.0	99.5	90.7	89.9	82.9	87.6	96.0
Multifactor productivity	67.0	82.3	96.8	93.1	97.1	100.0	101.0	98.8	100.8	100.3	104.9	110.4
Output	50.7	77.0	95.9	91.9	93.6	100.0	108.2	103.5	106.1	99.3	104.4	115.3
Inputs:												
Hours of all persons	84.4	97.3	103.1	101.2	95.9	100.0	106.5	101.7	101.1	92.7	93.5	99.8
Capital services	57.6	83.9	88.6	92.2	97.4	100.0	108.8	114.1	118.0	119.8	119.2	120.2
Combined units of labor and capital inputs	75.6	93.5	99.0	98.7	96.3	100.0	107.1	104.8	105.2	99.0	99.5	104.5
Capital per hour of all persons	68.3	86.2	85.9	91.1	101.6	100.0	102.1	112.2	116.7	129.2	127.5	120.4

44. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

(1977=100)

Item	1960	1970	1973	1974	1976	1977	1979	1980	1981	1982	1983	1984	1985
Business:													
Output per hour of all persons	67.5	88.3	95.9	93.9	98.3	100.0	99.6	99.2	100.7	100.3	103.1	105.2	105.4
Compensation per hour	33.6	57.7	70.9	77.6	92.8	100.0	119.1	131.5	143.7	154.9	161.9	168.2	175.1
Real compensation per hour	68.8	90.1	96.7	95.4	98.7	100.0	99.4	96.7	95.7	97.3	98.5	98.2	98.6
Unit labor costs	49.8	65.4	73.9	82.7	94.3	100.0	119.6	132.6	142.7	154.5	157.1	159.9	166.1
Unit nonlabor payments	46.3	59.4	72.5	76.4	93.4	100.0	112.5	118.8	134.7	136.8	145.5	156.5	157.7
Implicit price deflator	48.5	63.2	73.4	80.5	94.0	100.0	117.0	127.6	139.8	148.1	153.0	158.7	163.1
Nonfarm business:													
Output per hour of all persons	70.9	89.1	96.4	94.3	98.5	100.0	99.2	98.8	99.8	99.2	102.5	104.1	104.0
Compensation per hour	35.3	58.1	71.2	78.0	92.8	100.0	118.9	131.3	143.6	154.8	162.1	168.0	174.3
Real compensation per hour	72.2	90.7	97.1	95.9	98.8	100.0	99.2	96.6	95.7	97.2	98.6	98.0	98.2
Unit labor costs	49.8	65.2	73.9	82.7	94.2	100.0	119.8	132.9	144.0	156.0	158.1	161.4	167.6
Unit nonlabor payments	46.2	60.0	69.4	74.0	93.1	100.0	110.5	118.5	133.5	136.6	147.2	156.3	159.6
Implicit price deflator	48.5	63.4	72.3	79.7	93.8	100.0	116.5	127.8	140.3	149.2	154.2	159.6	164.8
Nonfinancial corporations:													
Output per hour of all employees	73.4	91.1	97.5	94.6	98.4	100.0	99.8	99.1	99.6	100.4	104.0	106.2	106.0
Compensation per hour	36.9	59.2	71.6	78.2	92.9	100.0	118.7	131.1	143.3	154.3	160.6	166.1	171.3
Real compensation per hour	75.5	92.4	97.6	96.1	98.9	100.0	99.1	96.4	95.5	96.9	97.7	96.9	96.5
Unit labor costs	50.2	65.0	73.4	82.6	94.3	100.0	119.0	132.3	143.8	153.8	154.5	156.4	161.6
Unit nonlabor payments	51.5	60.1	68.9	73.1	93.8	100.0	108.4	118.6	137.8	142.1	152.2	161.4	165.7
Implicit price deflator	50.7	63.3	71.9	79.4	94.2	100.0	115.4	127.6	141.7	149.8	153.7	158.1	163.0
Manufacturing:													
Output per hour of all persons	62.2	80.8	93.4	90.6	97.1	100.0	101.4	101.4	103.6	105.9	112.9	118.5	121.7
Compensation per hour	36.5	57.3	68.8	76.2	92.1	100.0	118.6	132.4	145.2	157.5	163.2	169.1	176.6
Real compensation per hour	74.7	89.4	93.8	93.6	98.1	100.0	99.1	97.4	96.7	98.9	99.3	98.7	99.5
Unit labor costs	58.7	70.9	73.7	84.1	94.9	100.0	117.0	130.6	140.1	148.7	144.5	142.8	145.1
Unit nonlabor payments	60.2	64.3	70.7	67.7	93.5	100.0	98.9	97.8	111.8	114.0	132.4	140.5	–
Implicit price deflator	59.1	69.0	72.8	79.3	94.5	100.0	111.7	121.0	131.8	138.6	141.0	142.1	–

– Data not available.

45. Unemployment rates in nine countries, quarterly data seasonally adjusted

Country	Annual average		1984			1985			
	1984	1985	II	III	IV	I	II	III	IV
Total labor force basis									
United States	7.4	7.1	7.4	7.3	7.1	7.2	7.2	7.1	6.9
Canada	–	–	11.3	11.2	11.1	11.1	10.5	10.2	10.1
Australia	–	–	9.1	8.8	8.5	8.5	8.4	8.1	–
Japan	–	–	2.7	2.8	2.7	2.6	2.6	2.6	–
France	–	–	9.7	9.9	10.0	10.2	10.1	10.1	9.9
Germany	–	–	7.7	7.8	7.7	7.8	7.8	7.8	7.7
Great Britain	–	–	12.7	13.0	12.8	13.0	13.1	13.4	13.0
Italy [1, 2]	–	–	5.9	5.7	5.7	5.8	5.8	6.0	6.2
Sweden	–	–	–	–	–	–	–	–	–
Civilian labor force basis									
United States	7.5	7.2	7.5	7.4	7.2	7.3	7.3	7.2	7.0
Canada	–	–	11.4	11.2	11.1	11.1	10.6	10.3	10.2
Australia	–	–	9.2	8.8	8.6	8.5	8.5	8.2	–
Japan	–	–	2.7	2.8	2.7	2.6	2.6	2.7	–
France	–	–	9.9	10.1	10.3	10.4	10.3	10.4	10.1
Germany	–	–	7.9	8.0	7.8	7.9	8.0	7.9	7.9
Great Britain	–	–	12.9	13.2	13.0	13.1	13.3	13.5	13.1
Italy	–	–	6.0	5.8	5.8	5.9	5.9	6.2	6.3
Sweden	–	–	–	–	–	–	–	–	–

[1] Quarterly rates are for the first month of the quarter.

[2] Major changes in the Italian labor force survey, introduced in 1977, resulted in a large increase in persons enumerated as unemployed. However, many persons reported that they had not actively sought work in the past 30 days, and they have been provisionally excluded for comparability with U.S. concepts. Inclusion of such persons would more than double the Italian unemployment rate shown.

– Data not available.

NOTE: Quarterly figures for France, Germany, and Great Britain are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures.

46. Annual data: Employment status of the civilian working-age population, ten countries

(Numbers in thousands)

Employment status and country	1976	1977	1978	1979	1980	1981	1982	1983	1984
Labor force									
United States	96,158	99,009	102,251	104,962	106,940	108,670	110,204	111,550	113,544
Canada	10,203	10,500	10,895	11,231	11,573	11,904	11,958	12,183	12,399
Australia	6,244	6,358	6,443	6,519	6,693	6,810	6,910	6,997	7,133
Japan	53,100	53,820	54,610	55,210	55,740	56,320	56,980	58,110	58,480
France	22,010	22,320	22,490	22,680	22,810	22,950	23,170	23,110	23,260
Germany	25,900	25,870	26,000	26,240	26,500	26,610	26,640	26,640	26,700
Great Britain	25,290	25,430	25,620	25,710	25,870	25,870	25,880	25,980	26,390
Italy	20,300	20,530	20,630	20,910	21,210	21,410	21,450	21,610	21,600
Netherlands	4,890	4,950	5,010	5,100	5,290	5,500	5,560	5,720	5,740
Sweden	4,149	4,168	4,203	4,262	4,312	4,326	4,350	4,369	4,385
Participation rate									
United States	61.6	62.3	63.2	63.7	63.8	63.9	64.0	64.0	64.4
Canada	61.1	61.6	62.7	63.4	64.1	64.8	64.1	64.4	64.8
Australia	62.7	62.7	62.0	61.7	62.2	62.0	61.8	61.5	61.5
Japan	62.4	62.5	62.8	62.7	62.6	62.6	62.7	63.1	62.7
France	57.4	57.6	57.6	57.5	57.2	57.1	57.1	56.5	56.6
Germany	53.8	53.4	53.3	53.3	53.2	52.9	52.5	52.8	53.1
Great Britain	63.2	63.2	63.3	63.2	63.2	62.2	61.9	62.2	62.7
Italy	47.8	48.0	47.7	47.8	48.0	48.0	47.4	47.2	47.5
Netherlands	49.1	49.0	48.8	49.0	50.0	51.3	51.2	52.4	52.3
Sweden	66.0	65.9	66.1	66.6	67.0	66.8	66.8	66.9	67.0
Employed									
United States	88,752	92,017	96,048	98,824	99,303	100,397	99,526	100,834	105,005
Canada	9,477	9,651	9,987	10,395	10,708	11,006	10,644	10,734	11,000
Australia	5,946	6,000	6,038	6,111	6,284	6,416	6,415	6,300	6,490
Japan	52,020	52,720	53,370	54,040	54,600	55,060	55,620	56,550	56,870
France	21,020	21,200	21,280	21,310	21,340	21,220	21,250	21,150	20,940
Germany	25,010	24,970	25,130	25,460	25,730	25,520	25,060	24,650	24,610
Great Britain	23,810	23,840	24,040	24,360	24,100	23,190	22,820	22,650	22,960
Italy	19,600	19,800	19,870	20,100	20,380	20,480	20,430	20,470	20,400
Netherlands	4,630	4,700	4,750	4,830	4,960	4,990	4,930	4,890	4,880
Sweden	4,083	4,093	4,109	4,174	4,226	4,218	4,213	4,218	4,249
Employment-population ratio									
United States	56.8	57.9	59.3	59.9	59.2	59.0	57.8	57.9	59.5
Canada	56.7	56.6	57.5	58.7	59.3	59.9	57.0	56.7	57.4
Australia	59.7	59.2	58.1	57.9	58.4	58.4	57.3	55.4	56.0
Japan	61.1	61.2	61.3	61.4	61.3	61.2	61.2	61.4	61.0
France	54.8	54.7	54.5	54.0	53.5	52.8	52.4	51.7	50.9
Germany	52.0	51.6	51.5	51.7	51.6	50.7	49.4	48.8	48.9
Great Britain	59.5	59.3	59.4	59.8	58.9	55.8	54.6	54.2	54.6
Italy	46.1	46.3	45.9	45.9	46.1	45.9	45.2	44.7	44.8
Netherlands	46.5	46.5	46.3	46.4	46.9	46.5	45.4	44.8	44.5
Sweden	64.9	64.8	64.6	65.3	65.6	65.1	64.7	64.4	64.7
Unemployed									
United States	7,406	6,991	6,202	6,137	7,637	8,273	10,678	10,717	8,539
Canada	726	849	908	836	865	898	1,314	1,448	1,399
Australia	298	358	405	408	409	394	495	697	642
Japan	1,080	1,100	1,240	1,170	1,140	1,260	1,360	1,560	1,610
France	990	1,120	1,210	1,370	1,470	1,730	1,920	1,960	2,320
Germany	890	900	870	780	770	1,090	1,580	1,990	2,090
Great Britain	1,480	1,590	1,580	1,350	1,770	2,680	3,060	3,330	3,430
Italy	700	740	760	810	830	920	1,020	1,140	1,200
Netherlands	260	250	260	270	330	510	630	830	860
Sweden	66	75	94	88	86	108	137	151	136
Unemployment rate									
United States	7.7	7.1	6.1	5.8	7.1	7.6	9.7	9.6	7.5
Canada	7.1	8.1	8.3	7.4	7.5	7.5	11.0	11.9	11.3
Australia	4.8	5.6	6.3	6.3	6.1	5.8	7.2	10.0	9.0
Japan	2.0	2.0	2.3	2.1	2.0	2.2	2.4	2.7	2.8
France	4.5	5.0	5.4	6.0	6.4	7.5	8.3	8.5	10.0
Germany	3.4	3.5	3.4	3.0	2.9	4.1	5.9	7.5	7.8
Great Britain	5.9	6.3	6.2	5.3	6.8	10.4	11.8	12.8	13.0
Italy	3.4	3.6	3.7	3.9	3.9	4.3	4.8	5.3	5.9
Netherlands	5.3	5.0	5.2	5.3	6.2	9.3	11.3	14.5	15.0
Sweden	1.6	1.8	2.2	2.1	2.0	2.5	3.1	3.5	3.1

. Annual indexes of productivity and related measures, twelve countries

)77=100)

Item and country	1960	1970	1973	1974	1976	1977	1979	1980	1981	1982	1983	1984	1985
tput per hour													
nited States	62.2	80.8	93.4	90.6	97.1	100.0	101.4	101.4	103.6	105.9	112.9	118.5	–
anada	50.3	76.8	91.3	93.4	96.2	100.0	104.2	101.9	104.0	101.0	107.6	111.5	–
apan	22.0	61.4	80.2	82.1	93.3	100.0	117.4	128.6	135.7	145.4	152.8	167.4	–
elgium	32.8	59.9	78.3	82.7	95.0	100.0	112.0	119.7	126.5	128.6	137.0	–	–
enmark	36.4	65.3	82.8	85.5	98.0	100.0	108.3	114.3	116.2	115.3	118.8	123.6	–
rance	36.3	69.3	82.0	85.0	94.9	100.0	110.6	112.4	116.0	123.5	128.8	135.2	–
ermany	39.8	70.9	83.4	87.2	96.2	100.0	107.4	108.4	110.3	111.6	116.8	122.3	–
taly	36.5	72.7	90.9	95.3	98.9	100.0	110.5	116.9	121.0	123.4	126.4	134.4	–
etherlands	31.7	63.0	80.1	86.7	96.1	100.0	112.1	114.6	118.7	121.6	130.4	–	–
orway	54.6	81.7	94.7	97.7	99.7	100.0	107.2	109.3	109.7	112.7	119.4	121.4	–
weden	42.3	80.7	94.8	98.8	101.7	100.0	110.9	112.7	113.2	116.5	126.4	134.9	–
nited Kingdom	53.8	77.6	93.1	95.4	99.4	100.0	102.1	99.9	106.1	110.9	118.3	123.0	–
utput													
nited States	52.5	78.6	96.3	91.7	93.1	100.0	108.1	103.2	104.8	98.4	105.6	117.9	–
anada	41.5	75.1	94.6	98.0	98.1	100.0	110.9	107.7	108.8	96.4	101.7	110.1	–
apan	17.9	65.3	87.4	85.7	93.2	100.0	118.0	130.7	139.0	148.6	160.1	180.3	–
elgium	41.6	78.0	95.7	99.5	99.4	100.0	104.2	107.3	104.8	104.8	106.2	–	–
enmark	48.2	81.7	95.4	96.8	99.4	100.0	107.2	112.1	108.5	108.2	115.0	123.6	–
rance	35.4	73.3	88.6	91.8	96.1	100.0	106.1	106.6	104.9	105.1	106.4	108.0	–
ermany	49.2	86.0	95.2	95.0	97.6	100.0	106.1	106.6	104.6	101.4	102.5	106.5	–
taly	37.4	78.0	90.5	96.3	97.9	100.0	108.6	115.4	114.3	111.6	109.0	113.1	–
etherlands	44.1	82.7	94.2	98.4	99.1	100.0	105.5	107.3	107.3	105.2	106.3	–	–
orway	55.1	87.0	99.5	104.0	101.4	100.0	100.3	101.3	100.1	99.9	98.7	101.2	–
weden	52.6	92.5	100.3	105.7	106.1	100.0	103.6	104.0	100.6	100.1	106.0	113.2	–
nited Kingdom	71.0	94.6	104.6	103.4	98.1	100.0	100.6	91.8	86.2	86.8	89.0	92.0	–
otal hours													
nited States	84.4	97.3	103.1	101.2	95.9	100.0	106.5	101.7	101.1	92.9	93.5	99.5	–
anada	82.6	97.7	103.6	105.0	102.0	100.0	106.4	105.7	104.6	95.4	94.6	98.7	–
apan	81.5	106.4	109.0	104.3	99.9	100.0	100.5	101.6	102.4	102.2	104.8	107.7	–
elgium	127.1	130.2	122.3	120.4	104.6	100.0	93.0	89.7	82.8	81.6	77.5	–	–
enmark	132.4	125.1	115.2	113.2	101.4	100.0	99.0	98.0	93.4	93.9	96.8	99.9	–
rance	97.6	105.7	108.0	108.0	101.3	100.0	95.9	94.8	90.4	85.0	82.6	79.9	–
ermany	123.6	121.3	114.2	108.9	101.5	100.0	98.8	98.4	94.8	90.8	87.7	87.0	–
taly	102.3	107.4	99.6	101.0	99.0	100.0	98.2	98.7	94.5	90.5	86.2	84.2	–
etherlands	139.1	131.1	117.7	113.4	103.1	100.0	94.1	93.7	90.4	86.5	81.5	–	–
orway	101.0	106.4	105.1	106.5	101.7	100.0	93.6	92.6	91.3	88.6	82.7	83.4	–
weden	124.4	114.6	105.7	107.0	104.3	100.0	93.4	92.3	88.9	85.9	83.9	83.9	–
nited Kingdom	131.8	121.9	112.4	108.4	98.7	100.0	98.6	91.9	81.3	78.2	75.2	74.8	–
ompensation per hour													
nited States	36.5	57.3	68.8	76.2	92.1	100.0	118.6	132.4	145.2	157.5	163.2	169.1	–
anada	27.1	46.5	59.2	68.5	89.9	100.0	118.3	130.6	151.5	167.1	179.3	181.8	–
apan	8.9	33.9	55.7	73.0	91.1	100.0	112.8	121.2	130.2	136.9	141.5	146.0	–
elgium	13.9	34.7	53.6	65.4	89.4	100.0	117.5	130.2	144.7	152.0	164.9	–	–
enmark	12.6	36.3	56.1	67.9	90.4	100.0	123.2	135.9	149.7	165.4	172.6	182.8	–
rance	15.1	36.5	52.1	61.9	88.8	100.0	129.7	148.1	171.3	202.7	227.4	247.5	–
ermany	18.8	48.1	67.6	77.1	91.4	100.0	115.4	125.0	133.8	140.9	146.7	152.1	–
taly	8.3	26.1	43.7	54.5	84.1	100.0	134.7	160.2	197.1	237.3	277.0	306.0	–
etherlands	12.2	38.5	60.1	71.7	92.1	100.0	117.3	123.5	130.3	139.4	147.3	–	–
orway	15.8	37.9	54.6	63.7	88.9	100.0	116.0	128.0	142.8	156.1	173.8	185.6	–
weden	14.7	38.5	54.2	63.8	91.5	100.0	120.1	133.6	148.1	158.9	173.2	192.0	–
nited Kingdom	14.9	30.9	45.0	57.2	88.9	100.0	137.1	162.8	185.6	201.8	216.2	233.4	–
Unit labor costs: National currency basis:													
nited States	58.7	70.9	73.7	84.1	94.9	100.0	117.0	130.6	140.1	148.7	144.5	142.8	–
anada	53.9	60.6	64.8	73.3	93.5	100.0	113.5	128.1	145.7	165.4	166.7	163.0	–
apan	40.5	55.2	69.4	88.9	97.7	100.0	96.1	94.2	95.9	94.1	92.6	87.2	–
elgium	42.4	57.9	68.5	79.1	94.1	100.0	104.9	108.9	114.4	118.3	120.4	–	–
enmark	34.5	55.6	67.8	79.4	92.3	100.0	113.7	118.9	128.8	143.5	145.3	147.8	–
rance	41.6	52.6	63.6	72.8	93.6	100.0	117.3	131.7	147.7	164.1	176.5	183.1	–
ermany	47.3	67.9	81.0	88.4	95.0	100.0	107.5	115.3	121.3	126.2	125.6	124.3	–
taly	22.8	36.0	48.1	57.2	85.1	100.0	121.9	137.0	162.9	192.4	219.2	227.7	–
etherlands	38.3	61.1	75.1	82.6	95.9	100.0	104.7	107.8	109.8	114.6	113.0	–	–
orway	29.0	46.4	57.6	65.2	89.1	100.0	108.2	117.0	130.2	138.5	145.6	152.9	–
weden	34.8	47.7	57.2	64.6	90.0	100.0	108.3	118.6	130.9	136.3	137.1	142.3	–
nited Kingdom	27.6	39.8	48.3	59.9	89.5	100.0	134.3	163.0	174.9	181.9	182.8	189.8	–
Unit labor costs: U.S. dollar basis:													
nited States	58.7	70.9	73.7	84.1	94.9	100.0	117.0	130.6	140.1	148.7	144.5	142.8	–
anada	59.0	61.7	68.8	79.7	100.7	100.0	103.0	116.4	129.1	142.3	143.7	133.7	–
apan	30.2	41.3	68.6	81.7	88.2	100.0	117.9	111.8	116.4	101.2	104.4	98.4	–
elgium	30.4	41.8	63.2	72.8	87.4	100.0	128.1	133.6	110.7	92.6	84.4	–	–
enmark	30.1	44.5	67.6	78.4	91.7	100.0	129.7	126.8	108.4	103.2	95.3	85.7	–
rance	41.7	46.8	70.4	74.5	96.3	100.0	135.5	153.4	133.4	122.6	113.9	103.0	–
ermany	26.3	43.2	71.0	79.5	87.6	100.0	136.2	147.5	124.9	120.7	114.1	101.4	–
taly	32.5	50.6	73.1	77.6	90.5	100.0	129.5	141.4	126.3	125.4	127.4	114.5	–
etherlands	24.9	41.4	66.3	75.6	89.0	100.0	128.1	133.2	108.2	105.2	97.2	–	–
orway	21.7	34.5	53.4	62.8	86.9	100.0	113.8	126.2	120.6	114.1	106.2	99.7	–
weden	30.1	41.1	58.7	65.1	92.3	100.0	112.9	125.3	115.4	96.9	79.8	76.9	–
nited Kingdom	44.5	54.6	67.9	80.4	92.6	100.0	163.4	217.2	202.9	182.2	158.8	145.4	–

– Data not available.

48. Occupational injury and illness incidence rates by industry, United States

Industry and type of case[1]	Incidence rates per 100 full-time workers[2]								
	1977	1978	1979	1980	1981	1982	1983	1984	1985
PRIVATE SECTOR[3]									
Total cases	–	–	–	8.7	8.3	7.7	7.6	8.0	–
Lost workday cases	–	–	–	4.0	3.8	3.5	3.4	3.7	–
Lost workdays	–	–	–	65.2	61.7	58.7	58.5	63.4	–
Agriculture, forestry, and fishing[3]									
Total cases	–	–	–	11.9	12.3	11.8	11.9	12.0	–
Lost workday cases	–	–	–	5.8	5.9	5.9	6.1	6.1	–
Lost workdays	–	–	–	82.7	82.8	86.0	90.8	90.7	–
Mining									
Total cases	–	–	–	11.2	11.6	10.5	8.4	9.7	–
Lost workday cases	–	–	–	6.5	6.2	5.4	4.5	5.3	–
Lost workdays	–	–	–	163.6	146.4	137.3	125.1	160.2	–
Construction									
Total cases	–	–	–	15.7	15.1	14.6	14.8	15.5	–
Lost workday cases	–	–	–	6.5	6.3	6.0	6.3	6.9	–
Lost workdays	–	–	–	117.0	113.1	115.7	118.2	128.1	–
General building contractors:									
Total cases	–	–	–	15.5	15.1	14.1	14.4	15.4	–
Lost workday cases	–	–	–	6.5	6.1	5.9	6.2	6.9	–
Lost workdays	–	–	–	113.0	107.1	112.0	113.0	121.3	–
Heavy construction contractors:									
Total cases	–	–	–	16.3	14.9	15.1	15.4	14.9	–
Lost workday cases	–	–	–	6.3	6.0	5.8	6.2	6.4	–
Lost workdays	–	–	–	117.6	106.0	113.1	122.4	131.7	–
Special trade contractors:									
Total cases	–	–	–	15.5	15.2	14.7	14.8	15.8	–
Lost workday cases	–	–	–	6.7	6.6	6.2	6.4	7.1	–
Lost workdays	–	–	–	118.9	119.3	118.6	119.0	130.1	–
Manufacturing									
Total cases	–	–	–	12.2	11.5	10.2	10.0	10.6	–
Lost workday cases	–	–	–	5.4	5.1	4.4	4.3	4.7	–
Lost workdays	–	–	–	86.7	82.0	75.0	73.5	77.9	–
Durable goods									
Lumber and wood products:									
Total cases	–	–	–	18.6	17.6	16.9	18.3	19.6	–
Lost workday cases	–	–	–	9.5	9.0	8.3	9.2	9.9	–
Lost workdays	–	–	–	171.8	158.4	153.3	163.5	172.0	–
Furniture and fixtures:									
Total cases	–	–	–	16.0	15.1	13.9	14.1	15.3	–
Lost workday cases	–	–	–	6.6	6.2	5.5	5.7	6.4	–
Lost workdays	–	–	–	97.6	91.9	85.6	83.0	101.5	–
Stone, clay, and glass products:									
Total cases	–	–	–	15.0	14.1	13.0	13.1	13.6	–
Lost workday cases	–	–	–	7.1	6.9	6.1	6.0	6.6	–
Lost workdays	–	–	–	128.1	122.2	112.2	112.0	120.8	–
Primary metal industries:									
Total cases	–	–	–	15.2	14.4	12.4	12.4	13.3	–
Lost workday cases	–	–	–	7.1	6.7	5.4	5.4	6.1	–
Lost workdays	–	–	–	128.3	121.3	101.6	103.4	115.3	–
Fabricated metal products:									
Total cases	–	–	–	18.5	17.5	15.3	15.1	16.1	–
Lost workday cases	–	–	–	8.0	7.5	6.4	6.1	6.7	–
Lost workdays	–	–	–	118.4	109.9	102.5	96.5	104.9	–
Machinery, except electrical:									
Total cases	–	–	–	13.7	12.9	10.7	9.8	10.7	–
Lost workday cases	–	–	–	5.5	5.1	4.2	3.6	4.1	–
Lost workdays	–	–	–	81.3	74.9	66.0	58.1	65.8	–
Electric and electronic equipment:									
Total cases	–	–	–	8.0	7.4	6.5	6.3	6.8	–
Lost workday cases	–	–	–	3.3	3.1	2.7	2.6	2.8	–
Lost workdays	–	–	–	51.8	48.4	42.2	41.4	45.0	–
Transportation equipment:									
Total cases	–	–	–	10.6	9.8	9.2	8.4	9.3	–
Lost workday cases	–	–	–	4.9	4.6	4.0	3.6	4.2	–
Lost workdays	–	–	–	82.4	78.1	72.2	64.5	68.8	–
Instruments and related products:									
Total cases	–	–	–	6.8	6.5	5.6	5.2	5.4	–
Lost workday cases	–	–	–	2.7	2.7	2.3	2.1	2.2	–
Lost workdays	–	–	–	41.8	39.2	37.0	35.6	37.5	–
Miscellaneous manufacturing industries:									
Total cases	–	–	–	10.9	10.7	9.9	9.9	10.5	–
Lost workday cases	–	–	–	4.4	4.4	4.1	4.0	4.3	–
Lost workdays	–	–	–	67.9	68.3	69.9	66.3	70.2	–

See footnotes at end of table.

—Continued Occupational injury and illness incidence rates by industry, United States

Industry and type of case[1]	Incidence rates per 100 full-time workers[2]								
	1977	1978	1979	1980	1981	1982	1983	1984	1985
Nondurable goods									
od and kindred products:									
otal cases	–	–	–	18.7	17.8	16.7	16.5	16.7	–
ost workday cases	–	–	–	9.0	8.6	8.0	7.9	8.1	–
ost workdays	–	–	–	136.8	130.7	129.3	131.2	131.6	–
bacco manufacturing:									
otal cases	–	–	–	8.1	8.2	7.2	6.5	7.7	–
ost workday cases	–	–	–	3.8	3.9	3.2	3.0	3.2	–
ost workdays	–	–	–	45.8	56.8	44.6	42.8	51.7	–
xtile mill products:									
otal cases	–	–	–	9.1	8.8	7.6	7.4	8.0	–
ost workday cases	–	–	–	3.3	3.2	2.8	2.8	3.0	–
ost workdays	–	–	–	62.8	59.2	53.8	51.4	54.0	–
parel and other textile products:									
otal cases	–	–	–	6.4	6.3	6.0	6.4	6.7	–
ost workday cases	–	–	–	2.2	2.2	2.1	2.4	2.5	–
ost workdays	–	–	–	34.9	35.0	36.4	40.6	40.9	–
per and allied products:									
otal cases	–	–	–	12.7	11.6	10.6	10.0	10.4	–
ost workday cases	–	–	–	5.8	5.4	4.9	4.5	4.7	–
ost workdays	–	–	–	112.3	103.6	99.1	90.3	93.8	–
inting and publishing:									
otal cases	–	–	–	6.9	6.7	6.6	6.6	6.5	–
ost workday cases	–	–	–	3.1	3.0	2.8	2.9	2.9	–
ost workdays	–	–	–	46.5	47.4	45.7	44.6	46.0	–
emicals and allied products:									
otal cases	–	–	–	6.8	6.6	5.7	5.5	5.3	–
ost workday cases	–	–	–	3.1	3.0	2.5	2.5	2.4	–
ost workdays	–	–	–	50.3	48.1	39.4	42.3	40.8	–
troleum and coal products:									
otal cases	–	–	–	7.2	6.7	5.3	5.5	5.1	–
ost workday cases	–	–	–	3.5	2.9	2.5	2.4	2.4	–
ost workdays	–	–	–	59.1	51.2	46.4	46.8	53.5	–
ubber and miscellaneous plastics products:									
otal cases	–	–	–	15.5	14.6	12.7	13.0	13.6	–
ost workday cases	–	–	–	7.4	7.2	6.0	6.2	6.4	–
ost workdays	–	–	–	118.6	117.4	100.9	101.4	104.3	–
ather and leather products:									
otal cases	–	–	–	11.7	11.5	9.9	10.0	10.5	–
ost workday cases	–	–	–	5.0	5.1	4.5	4.4	4.7	–
ost workdays	–	–	–	82.7	82.6	86.5	87.3	94.4	–
Transportation and public utilities									
Total cases	–	–	–	9.4	9.0	8.5	8.2	8.8	–
Lost workday cases	–	–	–	5.5	5.3	4.9	4.7	5.2	–
Lost workdays	–	–	–	104.5	100.6	96.7	94.9	105.1	–
Wholesale and retail trade									
Total cases	–	–	–	7.4	7.3	7.2	7.2	7.4	–
Lost workday cases	–	–	–	3.2	3.1	3.1	3.1	3.3	–
Lost workdays	–	–	–	48.7	45.3	45.5	47.8	50.5	–
Wholesale trade:									
Total cases	–	–	–	8.2	7.7	7.1	7.0	7.2	–
Lost workday cases	–	–	–	3.9	3.6	3.4	3.2	3.5	–
Lost workdays	–	–	–	58.2	54.7	52.1	50.6	55.5	–
Retail trade:									
Total cases	–	–	–	7.1	7.1	7.2	7.3	7.5	–
Lost workday cases	–	–	–	2.9	2.9	2.9	3.0	3.2	–
Lost workdays	–	–	–	44.5	41.1	42.6	46.7	48.4	–
Finance, insurance, and real estate									
Total cases	–	–	–	2.0	1.9	2.0	2.0	1.9	–
Lost workday cases	–	–	–	.8	.8	.9	.9	.9	–
Lost workdays	–	–	–	12.2	11.6	13.2	12.8	13.6	–
Services									
Total cases	–	–	–	5.2	5.0	4.9	5.1	5.2	–
Lost workday cases	–	–	–	2.3	2.3	2.3	2.4	2.5	–
Lost workdays	–	–	–	35.8	35.9	35.8	37.0	41.1	–

[1] Total cases include fatalities.

[2] The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as:
(N/EH) X 200,000, where:
N = number of injuries and illnesses or lost workdays.
EH = total hours worked by all employees during calendar year.
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year.)

[3] Excludes farms with fewer than 11 employees since 1976.

– Data not available.

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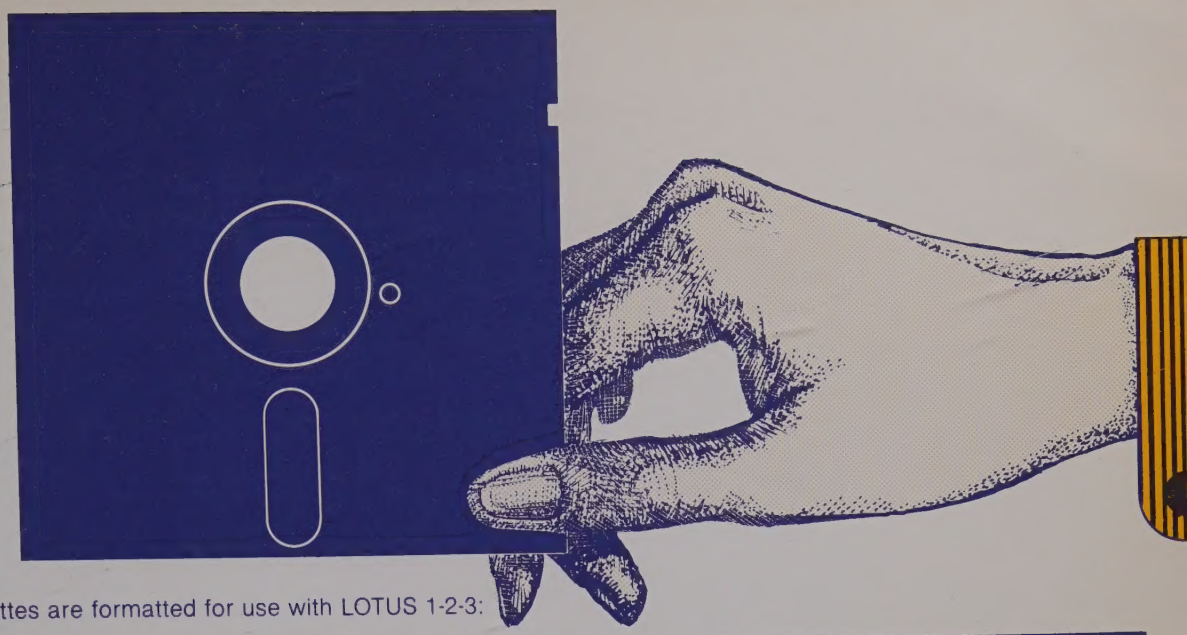

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